

2.0 PROPOSED ACTIONS AND ALTERNATIVES

This chapter identifies a range of alternatives to address the purpose and need statements described in Chapter One. A summary list of the major issues is given in Table 2-1.

Table 2-1: Summary List Of Major Issues		
Issue	Section	How Issue Is Addressed In This Plan
A. Public land health	2.1	Adopt standards for public land health and guidelines for grazing management
B. Threatened & Endangered and special status species protection: Desert tortoise	2.2	Establish Desert Tortoise Wildlife Management Areas and adopt management strategies within DWMA boundaries: <ul style="list-style-type: none"> • Designate Areas of Critical Environmental Concern on all public lands within DWMA's; • Assign MUC L to all public lands within DWMA's; • Change desert tortoise habitat to all CAT I inside and all CAT III outside of DWMA's. • Change grazing management to recover the desert tortoise. • Change burro management to recover the desert tortoise.
Amargosa vole	2.3	Designate an ACEC and adopt management strategies to facilitate recovery of the Amargosa vole and enhance other Amargosa watershed values.
T&E plants	2.4	Establish the Carson Slough ACEC and adopt management strategies to recover T&E plants.
Bats	2.5	Modify the MUC of the Silurian Hills to conserve BLM-sensitive bats.
C. Issues resulting from the California Desert Protection Act	2.6	Complete Plan maintenance actions to conform the CDCA Plan to the California Desert Protection Act
	2.7	Establish MUC for 475,000 acres of released WSA
	2.8	Evaluate the remnant Greenwater Canyon ACEC (820 acres)
D. Organized Competitive Vehicle Events	2.9	Address organized competitive vehicle events outside of open areas to protect sensitive resources and address fragmented race course: <ul style="list-style-type: none"> • Delete or modify the Barstow to Las Vegas Race Course; and/or • <u>Modify organized competitive vehicle speed events criteria.</u>
E. Motor Vehicle Access: Routes of Travel Designation	2.10	Address routes of travel designation for the NEMO Planning Area: <ul style="list-style-type: none"> • Designate routes of travel in desert tortoise DWMA's • Identify priorities for route designation in the rest of the Planning Area. • Evaluate MUC Guidelines for consistency in determining routes to be included in the routes of travel network.
E. Bureau policy on elimination of landfills on public lands	2.11	Change the Tecopa Landfill MUC L to U making it available for disposal.
		Change the Shoshone Landfill MUC L to U making it available for disposal.
F. Wild and Scenic Rivers	2.12	Identify portions of the Amargosa River, Cottonwood Creek and Surprise Canyon as eligible for potential inclusion in the National Wild and Scenic Rivers System and determine classification of eligible segments.

2.1 STANDARDS AND GUIDELINES

BLM's grazing regulations at Part 43 CFR 4180 require that State Directors, in consultation with Resource Advisory Councils, develop Standards of Rangeland Health and Guidelines for Grazing management. The grazing regulations require that Standards be in conformance with the "Fundamentals of Rangeland Health" (BLM policy developed in 1993) and that the Standards and Guidelines address each of the "guiding principles" as defined in the regulations (see Appendix B). Standards and Guidelines are to be incorporated into BLM's land use plans to improve ecological conditions. Improving ecological conditions is based upon attainment and maintenance of basic fundamentals for healthy systems. Standards and Guidelines are defined as follows:

- A Standard is an expression of the levels of physical and biological condition or degree of function required for healthy, sustainable rangelands.
- Guidelines for grazing management are the types of grazing management methods and practices determined to be appropriate to ensure that the standards can be met or that significant progress can be made toward meeting the standard.

Plan Alternatives and Scope

By this plan amendment public land health Standards will be developed and applied to resources and uses on the public (BLM) lands and grazing management guidelines will be developed and applied to grazing leases. The policy includes a set of "National Fallback" Standards and guidelines which apply only to livestock grazing in the Current Management/No Action Alternative. For all other alternatives common sets of "regional" Standards and guidelines have been developed. Regional Standards apply to all BLM lands and programs, while regional guidelines still only apply to livestock grazing. Bureau staff, in consultation with the California Desert District Advisory Council, have developed the regional Standards and guidelines which action satisfies the requirements of BLM's strategic plan, complies with the fundamentals of rangeland health, and addresses each of the guiding principles as required by the grazing regulations. Their development of guidelines for grazing management also addresses each of the guiding principles as well. At this time there are no plans to develop guidelines for other activities.

The purpose and nature of this policy is similar to the "Vital Signs" program established for the National Park Service. While the definition and adoption of Standards and Guidelines applies specifically and only to BLM lands, the spirit of the policy is reflected throughout the planning area in developing the strategic approach to managing species and habitats.

Required Actions on Grazing Leases

Standards and grazing management guidelines apply to grazing related portions of activity plans, terms and conditions of permits, leases, and other authorizations, and range

improvement activities such as vegetation manipulation, fence construction and development of water. For lands leased for grazing uses the grazing regulations require the authorized officer to “take appropriate action” prior to the beginning of the next grazing season when Standards are not achieved or guidelines not complied with and livestock grazing has been determined to be a significant factor in the failure to achieve the standard or comply with the guideline.

Application of Standards in Land Use Planning

Standards of Public Land Health will be applied to all resources and uses of the public lands. Both sets of standards would be applied in the following manner:

- **Public Land Health Standards:** A single set of public land health Standards will be applied desert-wide and to all resources and uses. Standards have their foundation in the physical and biological laws of nature. These laws are consistent regardless of the resource or use.
- **Assessment of Public Land Health:** The health of public lands and resources will be assessed using the Standards as the measurement of desired function.
- **Assessment Scale:** The health of the public lands will be assessed on a landscape /watershed scale. While it may be useful and necessary to examine certain environmental component parts on a smaller scale, or at various scales, it is intended that there be just one measure or conclusion of overall public land health and that this conclusion be made at a landscape or watershed scale.
- **Health Determination:** Since standards are a statement of the goals for physical or biological function, these determinations will be based strictly on the results of resource assessments and independent of the uses on the public lands.
- **Resource Objectives:** Resource management objectives are decisions made in consideration of resource values and capabilities and use needs through land use and activity plans. Public land health determinations will be used to determine if resource management objectives are being met. In some cases, particularly where intensive land uses are allowed, resource management objectives could be met, while the public land health determination may indicate non-conformance with the Standards.
- **Casual Factors:** When public land health determinations indicate that resource management objectives are not being met, a determination will be made as to the casual factors.
- **Action/Adaptive Management:** Where resource conditions and functions are not conforming to resource management objectives, appropriate action – including changes to land use or activity plans – will be initiated using existing regulatory authorities for each authorized activity. In the case of livestock grazing the regulations require that the authorized Officer “take appropriate action” prior to the beginning of the next grazing season when standards are not achieved or guidelines not complied with and livestock grazing has been determined to be a significant factor in the failure to achieve the standard or comply with the guideline.

- **Monitoring/ Adaptive Management:** An assessment of public land health will define what is wrong and where. This knowledge in turn will help define not only management change but an important component of a monitoring program: the tracking of progress towards health improvement.

Application of Standards in NEPA Analyses

Analyses of resources and issues guided by standards will help NEPA¹ review of projects. Consideration of standards should improve identification and analyses of:

- Relevant resource conditions and ecosystem functions;
- Actions in terms of effects on resources and ecosystem functions;
- The relationship of biological and physical resources and functions;
- The most important resources and functions;
- Project design and mitigation;
- Cumulative effects;
- Short-term and long-term effects; and
- Project monitoring

2.1.1 ALTERNATIVE 1 (NO ACTION)

2.1.1.1 Standards of Rangeland Health in the NEMO Planning Area

Continue to utilize existing National Fallback Standards for grazing allotments. Fallback standards were developed to implement 43 CFR, Subpart 4180 grazing regulations. The fallback standards for rangeland health are:

1. Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, and landform.
2. Riparian-wetland areas are in proper functioning condition.
3. Stream-channel morphology (including but not limited to gradient, width/depth ratio, channel roughness, and sinuosity) and functions are appropriate for the climate and landform.
4. Healthy, productive and diverse populations of native species exist and are maintained.

2.1.1.2 Rangeland Guidelines For Grazing Uses In The NEMO Planning Area:

Utilize existing national fallback guidelines for grazing management. Fallback guidelines were developed in conjunction with standards to implement 43 CFR Subpart 4180. Guidelines identify 15 grazing management practices to achieve the fallback standards.

¹ National Environmental Policy Act of 1972.

1. Management practices maintain or promote adequate amounts of ground cover to support infiltration, maintain soil moisture, and stabilize soils.
2. Management practices maintain or promote soil conditions that support permeability rates that are appropriate to climate and soils.
3. Management practices maintain or promote sufficient residual vegetation to maintain, improve, or restore riparian-wetland functions of energy dissipation, sediment capture, groundwater recharge and stream bank stability.
4. Management practices maintain or promote stream channel morphology (e.g., gradient, width/depth ratio, channel roughness and sinuosity) and functions that are appropriate to climate and landform.
5. Management practices maintain or promote the appropriate kinds and amounts of soil organisms, plants and animals to support the hydrologic cycle, nutrient cycle, and energy flow.
6. Management practices maintain or promote the physical and biological conditions necessary to sustain native populations and communities.
7. Desired species are being allowed to complete seed dissemination in one out of every three years (Management actions will promote the opportunity for seedling establishment when climatic conditions and space allow).
8. Conservation of federally threatened or endangered and other special status species are promoted by restoration and maintenance of their habitats.
9. Native species are emphasized in the support of ecological function.
10. Non-native plant species are used only in those situations in which native species are not readily available in sufficient quantities or are incapable of maintaining or achieving properly functioning conditions and biological health.
11. Periods of rest from disturbance or livestock use during times of critical plant growth or regrowth are provided when needed to achieve healthy, properly functioning conditions (The timing and duration of use periods shall be determined by the authorized officer).
12. Continuous, season-long livestock use is allowed to occur only when it has been demonstrated to be consistent with achieving healthy, properly functioning ecosystems.
13. Facilities are located away from riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland function.
14. Development of springs and seeps or other projects affecting water and associated resources shall be designed to protect the ecological functions and processes of those sites.
15. Grazing on designated ephemeral (annual and perennial) rangeland is allowed to occur only if reliable estimates of production have been made, the BLM has established an identified level of annual growth or residue to remain on site at the end of the grazing season, and adverse effects on perennial species are avoided.

2.1.2 ALTERNATIVE 2 (Preferred)

2.1.2.1 Standards of Public Land Health in the NEMO Planning Area

Adopt a set of regional standards of public land health in the NEMO Planning. These regional standards would replace the fallback standards currently in effect. Regional standards of public land health address all resources and uses on all public lands and cover five environmental components to be applied in the context of public land management.

1. Soils: Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, geology, landform, and past uses. Adequate infiltration and permeability of soils allow accumulation of soil moisture necessary for optimal plant growth and vigor, and provide a stable watershed. As indicated by:

- a. canopy and ground cover are appropriate for the site;
- b. there is diversity of plant species with a variety of root depths;
- c. litter and soil organic matter are present at suitable sites;
- d. microbiotic soil crusts are maintained and in place;
- e. evidence of wind or water erosion does not exceed natural rates for the site; and
- f. soil permeability, nutrient cycling and water infiltration are appropriate for the soil type.

2. Native Species: Healthy, productive and diverse habitats for native species, including special status species (Federal T&E, federally proposed, Federal candidates, BLM-sensitive, or California State T&E, and unusual plant assemblages) are maintained in places of natural occurrence. As indicated by:

- a. photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes;
- b. plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment;
- c. plant communities are producing litter within acceptable limits;
- d. age class distribution of plants and animals are sufficient to overcome mortality fluctuations;
- e. distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events;
- f. alien and noxious plants and wildlife do not exceed acceptable levels;
- g. appropriate natural disturbances are evident; and
- h. populations and their habitats are sufficiently distributed to prevent the need for listing special status species.

3. Riparian/Wetland and Stream Function: Wetland systems associated with subsurface, running, and standing water function properly and have the ability to recover from major disturbance (Refer to Appendix J). Hydrologic conditions are maintained. As indicated by:

- a. vegetative cover adequately protects banks and dissipates energy during peak water flows;
- b. dominant vegetation is an appropriate mixture of vigorous riparian species;
- c. recruitment of preferred species is adequate to sustain the plant community;
- d. stable soils store and release water slowly;
- e. plant species present indicate soil moisture characteristics are being maintained;
- f. there is minimal cover of shallow-rooted invader species, and they are not displacing deep-rooted native species;
- g. shading of stream courses and water sources support riparian vertebrates and invertebrates;
- h. stream is in balance with water and sediment being supplied by the watershed;
- i. stream channel size and meander is appropriate for soils, geology, and landscape; and
- j. adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition.

4. Water Quality: Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California State standards. As Indicated By²:

- a. The following do not exceed the applicable requirements: chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment, and dissolved oxygen.
- b. Achievement of the standards for riparian, wetlands, and water bodies.
- c. Aquatic organisms and plants (e.g., macroinvertebrates, fish, algae, and plants) indicate support for beneficial uses.
- d. Monitoring results or other data that show water quality is meeting the standard.

² This standard was negotiated between the California State Water Resources Control Board and the BLM, and includes the following components:

Management Objective: For water bodies, the primary objective is to maintain the existing quality and beneficial uses of water, protect them where they are threatened (and livestock grazing activities are a contributing factor), and restore them where they are currently degraded (and livestock grazing activities are a contributing factor). This objective is of even higher priority in the following situations: (a) where beneficial uses of water bodies have been listed as threatened or impaired pursuant to Section 303(d) of the Federal Clean Water Act; (b) where aquatic habitat is present or has been present for Federal threatened or endangered, candidate, and other special status species dependent on water resources; and, (c) in designated water resource sensitive areas such as riparian and wetland areas.

Meaning That: BLM will, pursuant to the Clean Water Act:

- Maintain the physical, biological, and chemical integrity of waters flowing across or underlying the lands it administers;
- Protect the integrity of these waters where it is currently threatened;
- Insofar as is feasible, restore the integrity of these waters where it is currently impaired;
- Not contribute to pollution and take action to remedy any pollution resulting from its actions that violates applicable California (including the requirements identified in Regional Basin Plans), or Tribal water quality standards or other applicable water quality requirements (e.g., requirements adopted by SWRCB or RWQCB in California, or US EPA pursuant to Section 303(d) of the Clean Water Act or the Coastal Zone Reauthorization Act). Where action related to grazing management is required, such action will be taken as soon as practicable but not later than the start of the next grazing year (in accordance with 43 CFR 4180.1).
- Be consistent with the non-degradation policies identified in the Regional Basin Plans in California.
- Work with the State (including the Regional Water Quality Control Boards) and U.S. EPA to establish appropriate beneficial uses for public waters, establish appropriate numeric targets for 303(d)-listed water bodies, and implement the applicable requirements to ensure that water quality on public lands meets the criteria for the designated beneficial uses of the water.
- Develop and implement Best Management Practices (BMPs) approved by the SWRCB to protect and restore the quality and beneficial uses of water, and monitor both implementation and effectiveness of the BMPs. These BMPs will be developed in full consultation, coordination, and cooperation with permittees and other interests.

In the meantime there are many management practices already in place or being proposed in NEMO that address water quality directly and also through soil-water-vegetation relationships (e.g., Amargosa River ACEC and Wild and Scenic River actions). These will be incorporated into a full array of BMPs. BMPs generally address prevention and minimization of non-point sources of pollution, particularly erosion and sedimentation, which can degrade water quality. They will include Guidelines applied to livestock grazing operations, standard design and mitigation measures for roads, mining, utilities and other surface disturbance operations, management of off-highway vehicle activities, and measures that address the needs of species and habitats.

2.1.2.2 Rangeland Guidelines For Grazing Uses In The NEMO Planning Area:

Adopt a set of regional guidelines in the NEMO Planning Area for grazing management. These regional guidelines would replace the current fallback guidelines, would identify grazing management practices to achieve the regional standards and would address the principles of grazing management practices as identified in 43 CFR 4180.2.

1. Facilities shall be located away from riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland functions.
2. The development of springs and seeps or other projects affecting water and associated resources shall be designed to protect the ecological functions and processes of those sites.
3. Grazing activities at an existing range improvement that conflict with achieving proper functioning conditions (PFC) and resource objectives for wetland systems (lentic, lotic, springs, addits, and seeps) shall be modified so PFC and resource objectives can be met, and incompatible projects shall be modified to bring into compliance. The BLM will consult, cooperate, and coordinate with affected interests and livestock producer(s) prior to authorizing modification of existing projects and initiation of new projects. New range improvement facilities shall be located away from wetland systems if they conflict with achieving or maintaining PFC and resource objectives.
4. Supplements shall be located a sufficient distance away from wetland systems so they do not conflict with maintaining riparian wetland functions.
5. Management practices shall maintain or promote perennial stream channel morphology (e.g., gradient, width/depth ratio, channel roughness, and sinuosity) and functions that are appropriate to climate and landform.
6. Grazing management practices shall meet State and Federal water quality standards. Impoundments (stock ponds) and developed springs having a sustained discharge yield of less than 200 gallons per day to surface or groundwater are excepted from meeting State drinking water standards per SWRCB Resolution Number 88-63.
7. In the California Desert Conservation Area all wildfires in grazing allotments shall be suppressed. However, to restore degraded habitats infested with invasive weeds (e.g., tamarisk) prescribed burning may be utilized as a tool for restoration. Prescribed burns may be used as a management tool where fire is a natural part of the regime.

8. In years when weather results in extraordinary conditions, seed germination, seedling establishment and native plant species growth shall be allowed by modifying grazing use.
9. Grazing on designated ephemeral range land shall be allowed only if reliable estimates of production have been made, an identified level of annual growth or residue to remain on site at the end of the grazing season has been established, and adverse effects on perennial species are avoided.
10. During prolonged drought, range stocking shall be reduced to achieve resource objectives and/or prescribed perennial forage utilization. Livestock utilization of key perennial species on year-long allotments shall be checked prior to spring growing season (about March 1) when the Palmer Severity Drought Index/Standardized Precipitation Index indicates dry conditions are expected to continue.
11. Through the assessment process or monitoring efforts, the extent of invasive and/or exotic plants and animals shall be recorded and evaluated for future control measures. Methods and prescriptions shall be implemented, and an evaluation will be completed to ascertain future control measures.
12. Restore, maintain or enhance habitats to assist in the recovery of federally-listed threatened and endangered species. Restore, maintain or enhance habitats of special status species including federally proposed and candidate, BLM sensitive, or California State T&E to promote their conservation.
13. Grazing activities shall support biological diversity across the landscape, and native species and microbiotic crusts are to be maintained.
14. Experimental and research efforts shall be encouraged to provide answers to grazing management and related resource concerns through cooperative and collaborative efforts with outside agencies, groups, and entities.
15. Based on Holechek's (et al., 1998) work or the best scientific information available, (Table 2-2) livestock utilization level of key perennial species in the Mojave Desert vegetative communities shall not exceed 40 percent on ranges that are grazed during the dormant season and are meeting standards. Rangelands that are grazed during the active growing season and are meeting standards shall not exceed 25 percent utilization of key species. The utilization range between 25 and 40 percent is for those forage species with a proper use factor that will allow consumption up to and between 25 and 40 percent otherwise lower use limits will prevail. Until modified with more current information, utilization of the following general range types shall be prescribed for grazing use.

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Table 2-2: Utilization Guidelines for Different Vegetative Community Types in the CDD*				
Average Annual Precipitation		% Use of Key Species for Moderate Grazing**	Vegetative Community Types	Reference
Cm.	In.			
10-13	4-8	25-35	Salt desert shrubland	Hutchings & Stewart 1953; Cook and Child 1971
13-30	8-12	30-40	Semidesert grass & shrubland	Valentine 1970; Paulsen & Ares 1961; Martin & Cable 1974; Holechek 1991
13-30	8-12	30-40	Sagebrush grassland	Pechanec & Stewart 1949; Laycock and Conrad 1981
40-130	16-50	30-40	Mountain shrub land	Pickford & Reid 1948; Skovlin et al. 1976
25-40	9-16	30-40	Pinyon-juniper woodland	Pieper 1970

*Adapted from Holechek et al. and Holechek 1998

** Rangelands in good condition and/or grazed during the dormant season can withstand the higher utilization level. Those in poor condition or grazed during active growth should receive the lower utilization level.

Monitoring of grazing allotments resource conditions will be routinely assessed to determine if Public Land Health Standards are being met. In those areas not meeting one or more standards, monitoring processes will be established if they do not presently exist to monitor indicators of health until the standard or resource objective has been attained. Livestock trail networks, grazed plants, livestock facilities, and animal waste are expected impacts in all grazing allotments and will be considered during analysis of the assessment and monitoring process. Activity plans for other uses or resources that overlap an allotment could have prescribed resource objectives that may further constrain grazing activities, e.g., ACEC. In an area where a standard has not been met, the results from monitoring changes to grazing management required to meet standards will be reviewed annually. During the final phase of the assessment process, the Range Determination includes the schedule for the next assessment of resource conditions. To attain standards and resource objectives, the best science will be used to determine appropriate grazing management actions. Cooperative funding and assistance from other agencies, individuals, and groups will be sought to collect prescribed monitoring data for indicators of each standard.

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Summary Comparison of Candidate Amendments and Alternatives	
Standards and Guidelines	
Alternative 1 (No Action)	Alternative 2 (Preferred)
<p>Continue to utilize existing national fallback standards of rangeland health for grazing allotments</p> <p>Standards include the following four environmental components:</p> <ul style="list-style-type: none"> Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, and landform. riparian-wetland areas are in proper functioning condition. stream-channel morphology (including but not limited to gradient, width/depth ratio, channel roughness, and sinuosity) and functions are appropriate for the climate and landform. healthy, productive and diverse populations of native species exist and are maintained. 	<p>Adopt a set of regional standards of public land health for all public lands in the NEMO Planning Area.</p> <p>1. Soils: Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, geology, landform, and past uses. Adequate infiltration and permeability of soils allow accumulation of soil moisture necessary for optimal plant growth and vigor, and provide a stable watershed. As indicated by:</p> <ul style="list-style-type: none"> canopy and ground cover are appropriate for the site; there is diversity of plant species with a variety of root depths; litter and soil organic matter are present at suitable sites; microbiotic soil crusts are maintained and in place; evidence of wind or water erosion does not exceed natural rates for the site; and soil permeability, nutrient cycling and water infiltration are appropriate for the soil type. <p>2. Native Species: Healthy, productive and diverse habitats for native species including special status species (Federal T&E, federally proposed, Federal candidates, BLM sensitive, or California State T&E, and unusual plant assemblages) are maintained in places of natural occurrence. As indicated by:</p> <ul style="list-style-type: none"> photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes; plant vigor nutrient cycle and energy flow are maintaining desirable plants and ensuring reproduction and recruitment plant communities are producing litter within acceptable limits; age class distribution of plants and animals are sufficient to overcome mortality fluctuations; distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events; alien and noxious plants and wildlife do not exceed acceptable levels; appropriate natural disturbances are evident; and populations and their habitats are sufficiently distributed to prevent the need for listing special status species. <p>3. Riparian/Wetland and Stream Function: Wetland systems associated with subsurface, running, and standing water function properly and have the ability to recover from major disturbances. Hydrologic conditions are maintained. As indicated by:</p> <ul style="list-style-type: none"> vegetative cover adequately protect banks and dissipates energy during peak water flows; dominant vegetation is an appropriate mixture of vigorous riparian species. Recruitment of preferred species is adequate to sustain the plant community. stable soils store and release water slowly; plant species present indicate soil moisture characteristics are being maintained; there is minimal cover of shallow-rooted invader species, and they are not displacing deep-rooted native species. shading of stream courses and water sources support riparian vertebrates and invertebrates; stream is in balance with water and sediment being supplied by the watershed; stream channel size and meander is appropriate for soils geology, and landscape; and adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition. <p>4. Water Quality: Water quality will meet State and Federal standards including exemptions allowable by law. As indicated by:</p> <ul style="list-style-type: none"> dissolved oxygen levels, aquatic organisms and plants (e.g., macro invertebrates, fish and algae) indicate support of beneficial uses; chemical constituents, water temperature, nutrient loads, fecal coliform and turbidity are appropriate for the site or source; and best management practices will be implemented.
Grazing Management Guidelines	
Alternative 1 (No Action)	Alternative 2 (Preferred)
<p>Utilize existing national fallback guidelines for grazing mgt which identify 15 grazing mgt practices to achieve the fallback standards(p 2-2</p>	<p>Adopt a set of regional guidelines in the NEMO Planning Area for grazing management. These regional guidelines would replace the current fallback guidelines and include additional tools (e.g. wildfire) and a more comprehensive set of guidelines. They would identify grazing management practices to achieve the regional standards and would address the principles of grazing management practices as identified in 43 CFR 4180.2.</p>

2.2 DESERT TORTOISE CONSERVATION AND RECOVERY

The alternatives identified in this document are intended to promote the recovery of the desert tortoise. The goal of any adopted strategy at a minimum would be to achieve the recovery criteria defined within the *Recovery Plan for Desert Tortoise (Mojave Population)*. Meeting these criteria means to achieve the necessary progress to delist the desert tortoise. These recovery criteria are listed in the Proposed Desert Tortoise Conservation Strategy (Appendix A). The Desert Tortoise Recovery Plan (pp. 45-55) recommended several actions to meet recovery criteria objectives. Chief among these were:

- establish areas where viable desert tortoise populations are maintained;
- develop and implement management prescriptions for these areas to address threats sufficient to meet recovery criteria;
- provide sufficient habitat in these areas to ensure that management strategies are effective;
- monitor tortoise populations to assess effectiveness of management prescriptions in meeting recovery objectives in these areas (Refer to Appendix D);
- establish an environmental education program to facilitate understanding of desert tortoise threats and recovery needs, and effect compliance with management strategies in these areas; and
- continue research necessary to assess relative importance of threats to the desert tortoise in these areas and to evaluate and improve mechanisms to address these threats.

These recommended actions apply to desert tortoise populations and habitat in all of the Desert Tortoise Recovery Units and form the basis for the alternatives in the NEMO Planning effort. If alternative strategies were identified that also met the recovery objectives, they were also considered. The six recovery plan actions and the No Action alternative therefore form the parameters for the range of alternatives. Not all actions require CDCA plan-level decisions. For additional activity-level planning see Appendix A.

The alternatives for desert tortoise recovery respond to eighteen issues that involve potential threats to the desert tortoise and its habitat identified from the Desert Tortoise Recovery Plan, other literature reviews, past biological assessments and USFWS Biological Opinions. Some of these potential threats were identified based on rangewide analyses covering all six Desert Tortoise Recovery Units; consequently, a separate issue analysis was conducted by the NEMO Biological Team on public lands in the Eastern Mojave Recovery Unit, to determine their relative importance to this population³. Based on the issue analysis, the categories of management prescriptions to address desert

³ See Appendix A, proposed Desert Tortoise Conservation Strategy for a discussion of threats in the East Mojave and a summary list of major resources and Appendix C for a discussion of issues affecting the desert tortoise and its recovery.

tortoise recovery were identified. Potential threats more important in the East Mojave desert tortoise population include:

- surface disturbances resulting in habitat loss;
- disturbances, if linear or large, that contribute to fragmentation of habitat;
- cumulative effects that are not adequately analyzed or tracked;
- forage competition which may occur between desert tortoise and cattle and burros; and
- direct predation on desert tortoise by ravens and other predators.

2.2.1 ALTERNATIVE 1 (NO ACTION)

The existing strategies identified in the CDCA Plan, *The Tortoise Rangewide Plan*, *California Statewide Tortoise Management Policy*, and biological opinions issued under the Federal Endangered Species Act form the No Action alternative. The existing management situation is described in more detail in *Current Desert Tortoise Management Situation in BLM-Administered Lands Portion of Northern and Eastern Mojave Planning Area* (Foreman 1998).

2.2.1.1 Desert Wildlife Management Areas.

Utilize existing Category I, II and III desert tortoise habitat with no additional special conservation strategies prescribed for the areas. Goals identified for desert tortoise habitat categories are defined as:

- Category I: Maintain stable, viable populations and increase populations where possible.
- Category II: Maintain stable, viable populations
- Category III: Limit declines to the extent possible using mitigation measures.

Utilize existing Multiple-Use Class (MUC) on public lands in the Planning Area recognizing that:

- tortoise management direction has been set forth in the BLM *Rangewide Management Plan* and BLM *California Statewide Tortoise Management Policy*;
- the Rangewide plan and Statewide policy are based on tortoise habitat Categories that have been adopted in the CDCA Plan and are now being implemented; and
- the three habitat management plans (HMPs) (totaling 232,000 acres) identified in the CDCA Plan have not been written.

The three Habitat Management Plan Areas would remain in effect as designated by the CDCA Plan. These HMPs are smaller in acreage than the desert tortoise Category I habitat for the same area (refer to Table 2-3 for acreage comparison and Chapter 7, Figure 6a for a graphic representation of the No Action Alternative).

Table 2-3: Category I Habitat compared to Current HMP		
Desert Tortoise Units	Category I*	Current HMP
Piute-Fenner Unit	173,850	About 165,000
Ivanpah Valley Unit	37,280	About 25,000
Shadow Valley Unit	114,060	About 42,000
N. Ivanpah Unit	29,110	0
Total Acres	354,300	Abt 232,000

* There is no Category II or III habitat located within the current HMP area.

2.2.1.2 General Management Strategy

Utilize existing direction from the CDCA Plan and Statewide Desert Tortoise Policy in all desert tortoise habitat on public lands, without modification. Existing strategies identified in the CDCA Plan, the BLM and CDFG's Statewide Desert Tortoise Policy, programmatic agreements or biological opinions⁴ with the USFWS would remain in effect, subject to periodic update and renegotiations. Current Biological Opinions and programmatic agreements include:

- B.O. 1-6-92-F-19, July 13, 1993: Biological Opinion on the affects of cattle grazing in the California Desert on the desert tortoise resulted in a number of terms and conditions for continued grazing use in tortoise habitat.
- B.O. 1-5-94-F-107 April 20, 1994: Biological Opinion on the effects of cattle grazing in desert tortoise critical Habitat. Terms and conditions in this opinion were similar to the previous.
- B.O. 1-5-96-F-296R, February 28, 1997: Consultation for the purpose of extending the previous consultation resulted in terms and conditions applicable to cattle grazing on public lands from the 1994 opinion which is currently in effect.
- Programmatic Biological opinion for mineral exploration and other small mining operations of less than 10 acres was prepared by the USFWS for BLM. For these mining activities, standard mitigation measures apply (refer to Appendix A, mitigation measures).

Biological consultation would occur with wildlife agencies on measures in the CDCA Plan and would continue on all projects proposed in desert tortoise habitat on a case-by-case basis, and projects not covered by B.O.s would be considered on a case-by-case basis, may involve consultation with USFWS or CDFG and may include additional terms and conditions for the conservation and recovery of the desert tortoise and its habitat.

Compensation: A mitigation fee based on the amount of acreage disturbed will be required of proponents of new development. The formula used to determine the amount of acreage to be acquired is described in the California Statewide Desert

⁴ An evaluation prepared by the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act providing their conclusions on whether a proposed project is likely to jeopardize the continued existence of a listed species, or destroy or adversely modify critical habitat.

Tortoise Management Policy and considers the following factors:

- Habitat category,
- Impact on adjacent lands reducing tortoise densities,
- Whether or not the use will tend to induce growth,
- Duration of the effect (i.e., short term - less than 10 years, long term - greater than 10 years),
- Whether or not there is moderate to heavy existing disturbance.

These factors are added together to arrive at an acreage multiplier used to determine the amount of compensation acres to be acquired by the project proponent. Category III habitat receives a compensation rate of 1.0 regardless of other factors.

2.2.1.3 Vehicle Management

Route designation would occur in all critical desert tortoise habitat, consistent with Federal regulation and CDCA Plan guidance, based on the existing route inventory. Routes not approved for vehicle access would, in most instances, be obliterated, barricaded, signed or marked. Specific techniques chosen would depend on location, potential effectiveness, and sensitivity of resources and availability of manpower and funding.

Rules for stopping, parking and camping would remain unchanged. Currently vehicle parking along routes of travel is limited to within 300 feet of the route and specific areas may be signed open or closed to protect sensitive resources adjacent to the route. Use of washes is governed by area designations. In Limited areas, vehicle use in desert washes is governed by the multiple-use class. Additionally, washes as access routes may have travel limitations such as speed limits or seasonal closure imposed to protect resources or to minimize conflicts with other uses. The open camping zone along roads within the desert tortoise critical habitat may be limited to 100 feet in sensitive areas.

2.2.1.4 Grazing Management

Utilize Fallback Standards of rangeland health and Guidelines for grazing management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions⁵. Maximum utilization levels on key forage species and minimum thresholds of ephemeral plant production required for ephemeral cattle authorizations to occur are set in these biological opinions.

2.2.1.5 Burro Management

Utilize existing CDCA Plan management and the existing East Mojave Herd Management Area (HMA) Plan to manage burros within desert tortoise habitat, including those within critical and/or Category I desert tortoise habitat.

⁵ Federal Biological Opinion 1-5-94-F-107 (FWS 1994) and its extension 1-5-96-F-296R (FWS 1997).

2.2.1.6 Land Tenure

Existing public lands in critical and Category I habitat would be retained, consistent with the Statewide Desert Tortoise Management Policy. Most land would be acquired as compensation for project disturbances or as part of exchanges.

2.2.2 ALTERNATIVE 2 (Modified Recovery Plan)

2.2.2.1 Identify Desert Wildlife Management Area Boundaries and MUC.

Establish two Desert Wildlife Management Areas consisting of four ACECs (Piute-Fenner, Ivanpah Valley, Shadow Valley, and Northern Ivanpah Valley) totaling 354,300 acres (see Table 2-3) as shown on Figure 6b, Chapter 7. These units include all critical habitat in these areas. The four ACECs will encompass and replace the existing wildlife habitat management areas (HMP Areas). Category I habitat would be adjusted slightly to coincide with the critical habitat boundaries including in the Ivanpah Unit (Category I eliminated north of the second main linear utility running across the southern extent of Ivanpah Dry Lake). All tortoise habitat outside of the Desert Wildlife Management Areas would be assigned Category III tortoise habitat.

Change MUC M to L in three units (Piute-Fenner, Shadow Valley, and Northern Ivanpah Valley) totaling 48,642 acres. Changes in MUC acreages are shown in Table 2-4a. (Refer to Chapter 7, Figure 6b)

Table 2-4a: Desert Tortoise Conservation and Recovery			
Identify Area MUC			
Alternative 2 Designate 4 ACECs			
Desert Tortoise Units	Acres L or C	Acres M	Total Acres
Piute-Fenner Unit	169,890	3,960	173,850
Ivanpah Valley Unit	37,280	0	37,280
Shadow Valley Unit	75,307	38,753	114,060
N. Ivanpah Unit	23,181	5,929	29,110
Total	305,658	48,642	354,300

2.2.2.2 General Management Strategy

Modify existing CDCA Plan management in all desert tortoise habitat in the Planning Area, by adopting specific management strategies, including the following:

- The BLM will enter into a programmatic consultation with USFWS on all desert tortoise habitat (Category I and III) in the NEMO Planning Area. The programmatic consultation will generally cover all projects that result in new surface disturbance of 100 acres or less. Projects that (1) disturb more than 100 acres or (2) require an EIS or (3) require a CDCA Plan Amendment will necessitate a separate consultation with USFWS and are not covered by this plan amendment.
- Limit additional cumulative surface disturbance to 1% of public lands in each

of the four proposed units of the identified Desert Wildlife Management Areas (see Appendix F);

- Adopt prescriptions and mitigation measures outlined in Appendix A, (*Proposed NEMO Desert Tortoise Conservation Strategy*) except as outlined for cumulative new surface disturbance and vehicle, grazing, burro and raven management specific to each alternative; and
- Existing programmatic agreements or biological opinions with the USFWS would be replaced with a new programmatic agreement incorporating project stipulations listed in Attachment 1 of Appendix A. Biological consultation with wildlife agencies on measures in the CDCA Plan would occur, and projects in desert tortoise habitat would continue on a programmatic basis, under the terms of the existing Statewide Desert Tortoise Policy and the terms identified herein.
- Implement cooperative phased raven management program as described in Appendix A. This program includes actions targeted at (1) raven research; (2) alteration of raven habitat; (3) lethal actions against ravens in specific situations; (4) administrative actions the agency can undertake; and (5) possible actions for future phases. It may be modified or supplemented later by a multi-agency program authorized by the Desert Managers Group. Proposed projects on public lands anywhere in the Planning Area which have a potential for increasing raven populations will be reviewed for design and operation features and will require mitigation measures to reduce or eliminate the opportunity for proliferation of ravens.
- Change the compensation ratio in all Category I habitat to 5:1.

2.2.2.3 Vehicle Management

Designate routes of travel in the DWMAs, consistent with Federal regulation and the existing route inventory. Refer to Chapter 7, Figures 4a - d for the route inventory and proposed network under this alternative and Appendix Q for a discussion of the route designation process and methodology. Routes not approved for vehicle access would, in most instances, be obliterated, barricaded, signed or marked. Specific techniques chosen would depend on location, potential effectiveness, and sensitivity of resources and availability of manpower and funding.

Rules for parking and camping would be modified as follows:

- Parking and camping will be allowed within 50 feet of route centerline within proposed Desert Wildlife Management Areas.
- All navigable washes would be designated as closed routes in proposed DWMAs.
- Interpretive signing and informational kiosks will be installed.

2.2.2.4 Grazing Management

Utilize Regional Standards of public land health and Guidelines for Grazing Management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions. For allotments within the DWMAs:

- Terminate all authorizations related to grazing activities and cancel the portion of the allotment in the DWMAs.
- Develop new allotment boundaries, where feasible, from portions of affected allotments outside of the DWMAs.

2.2.2.5 Burro Management

Eliminate the Clark Mountain Herd Management Area. This area includes some lands now under NPS jurisdiction, which have not been available for burro use since passage of the California Desert Protection Act. Most of the remaining herd concentration areas are located in one of the proposed DWMAs. Burros would be removed.

2.2.2.6 Land Tenure

Acquire all private lands in DWMAs from willing sellers.

2.2.3 ALTERNATIVE 3 (Addresses Recovery Plan Goals/Objectives With Two Focal Populations)

2.2.3.1 Identify Desert Wildlife Management Area Boundaries and MUC.

Establish two Desert Wildlife Management Areas consisting of three ACECs (Piute-Fenner, Ivanpah Valley, and Shadow Valley) totaling 325,190 acres (see Table 2-3) as shown on Figure 6c, Chapter 7. These units include all critical habitat in the NEMO Planning Area. The three units would modify and replace the existing wildlife habitat management areas (WHMAs). Category I habitat would be eliminated in Northern Ivanpah Valley, reduced in Ivanpah Valley (eliminated north of the second main linear utility running across the southern extent of Ivanpah Dry Lake) and adjusted slightly in the other two units to coincide with the critical habitat boundaries. All tortoise habitat outside of the DWMAs would be assigned Category III tortoise habitat.

Change MUC M to L in two units (Piute-Fenner and Shadow Valley) totaling 42,713 acres. Changes in MUC acreages are shown in Table 2-4b. (Refer to Chapter 7, Figure 6c for a map of this alternative.)

Table 2-4b: Desert Tortoise Conservation and Recovery			
Identify Area MUC			
Alternative 3 Designate 3 ACECs			
Desert Tortoise DWMA Unit	Acres L or C	Acres M	Total Acres
Piute-Fenner Unit	169,890	3,960	173,850
Ivanpah Valley Unit	37,280	0	37,280
Shadow Valley Unit	75,307	38,753	114,060
N. Ivanpah Unit	0	0	0
Total	282,477	42,713	325,190

2.2.3.2 General Management Strategy

Alternative 3 is the same as Alternative 2, as modified:

- The programmatic consultation will also cover electrical transmission lines or pipelines within an existing CDCA Plan utility corridor for which the NEPA mechanism is an EA and not an EIS regardless of size.
- Implement regional cooperative raven management program as described in Appendix A, which targets removal where juvenile tortoise mortality is high and raven predation is known to occur. Lethal removal of specific offending ravens would be allowed in this alternative. Proposed projects on public lands anywhere in the Planning Area which have a potential for increasing raven populations will be reviewed for design and operation features and will require mitigation measures to reduce or eliminate the opportunity for proliferation of ravens.
- Change the compensation ratio in all Category I habitat to 5:1.

2.2.3.3 Vehicle Management

Same as Alternative 2 except the following:

- Stopping, parking and camping will be allowed within 100 feet of route centerline within proposed DWMA's.
- Where navigable washes are designated open or limited, parking and camping will be allowed only within the banks of the wash.

2.2.3.4 Grazing Management

Utilize Regional Standards and Guidelines for Grazing Management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions. For allotments within the DWMA's:

- Allow voluntary relinquishment of grazing leases and related authorizations and retire allotment upon relinquishment.
- Remove cattle from the DWMA's when ephemeral forage production is less than 230 pounds per acre as per the grazing strategy from 3/15 to 11/1. The NEMO grazing strategy will be developed within a year and implemented

within two years. The strategy shall be a written plan detailing the areas of removal, natural cattle movements, existing and potential improvements, and other constraints of cattle management based on adopted DWMA's.

- Terminate ephemeral allotments and terminate ephemeral authorization for ephemeral/perennial allotments.
- Temporary nonrenewable grazing use will not be authorized.

2.2.3.5 Burro Management

Modify the Clark Mountain HMA boundary to exclude that area located within the Proposed Shadow Valley Unit of the identified DWMA and eliminate the herd concentration area within this same unit. Re-establish the HMA in the eastern portion of the Clark Mountain Herd Area. The Appropriate Management Level (AML) would be revised to 60 burros, consistent with CDCA Plan target HMA levels identified for the modified area in 1981, pending the outcome of a 5-year carrying capacity analysis, which would be based on the remaining forage provided by the modified HMA.

Burros located in the proposed DWMA would be removed and any potential drift managed through relocation by live capture or indirect means, such as manipulation of water supply, to the remaining herd concentration areas within the Clark Mountain HMA. Terms and conditions would be identified and incorporated into the East Mojave HMA plan, and would include 40%⁶ maximum utilization levels on key forage species in order for burro use to continue in desert tortoise habitat; as well as strategies to manage drift into the DWMA or the Mojave National Preserve; areas to be fenced; and other needed range improvements and requirements specifically to promote desert tortoise conservation and recovery (See Appendix E).

2.2.3.6 Land Tenure

Same as Alternative 2.

2.2.4 ALTERNATIVE 4 (Addresses Recovery Plan Goals/Objectives With One Focal Population)

2.2.4.1 Identify Desert Wildlife Management Area Boundaries and MUC.

Establish a DWMA consisting of two units (Piute-Fenner and Ivanpah Valley) totaling 211,130 acres (see Table 2-3) as shown on Figure 6d, Chapter 7. These units include all critical habitat in the NEMO Planning Area south of Interstate 15 (i.e., all except in Shadow Valley). As in Alternative 2, the two units would be designated as ACECs, and the existing wildlife habitat management areas (WHMAs) would be deleted. Category I habitat would be eliminated in Northern Ivanpah Valley and Shadow Valley, the Shadow Valley WHMA would be deleted, reduced

⁶ Maximum utilization levels on key forage species would be further limited to 30% until range condition improves to "good".

in Ivanpah Valley (eliminated north of the second main linear utility running across the southern extent of Ivanpah Dry Lake) and adjusted slightly in the Piute-Fenner Unit to coincide with the critical habitat boundaries. All tortoise habitat outside of the DWMA would be assigned Category III tortoise habitat.

Change MUC M to L in the Piute-Fenner Unit on 3,960 acres. Changes in MUC acreages are shown in Table 2-4c below. (Refer to Chapter 7, Figure 6d. for a map)

Table 2-4c: Desert Tortoise Conservation and Recovery Identify Area MUC			
Alternative 4 Designate 2 ACECs			
Desert Tortoise DWMA Unit	Acres L or C	Acres M	Total Acres
Piute-Fenner Unit	169,890	3,960	173,850
Ivanpah Valley Unit	37,280	0	37,280
Shadow Valley Unit	0	0	0
N. Ivanpah Unit	0	0	0
Total	207,170	3,960	211,130

2.2.4.2 General Management Strategy

Alternative 4 is the same as Alternative 2 except:

- Projects that (1) disturb more than 250 acres or (2) require an EIS or (3) require a CDCA Plan Amendment will necessitate a separate consultation with USFWS and are not covered by this plan amendment;
- The programmatic consultation will also cover electrical transmission lines or pipelines within an existing CDCA Plan utility corridor for which the NEPA mechanism is an EA and not an EIS (rather than 1%).
- Cumulative new surface disturbance limits of 3 percent in DWMA's.
- A comprehensive phased raven management program that would not include lethal removals. Ravens that are known to prey on tortoise may be removed through non-lethal means, only.

2.2.4.3 Vehicle Management

Same as Alternative 2 except stopping, parking and camping will be allowed within 100 feet of route centerline within proposed DWMA's

2.2.4.4 Grazing Management

Utilize Regional Standards of public land health and Guidelines for Grazing Management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions. For allotments within the wildlife management area:

- Allow voluntary relinquishment of grazing leases and related authorizations and retire allotment upon relinquishment.

- Retire ephemeral allotments, and terminate ephemeral authorization for ephemeral/perennial allotments. (Refer to Table 2-4 for a list of affected allotments and Appendix E for proposed terms and conditions for Cattle Grazing)

2.2.4.5 Burro Management

Same as Alternative 1 (No Action)

2.2.4.6 Land Tenure

Same as Alternative 2.

2.2.5 ALTERNATIVE 5 (Preferred)

2.2.5.1 Identify Desert Wildlife Management Area Boundaries and MUC's.

Alternative 3 as modified: Establish two DWMA's consisting of three ACECs (Piute-Fenner, Ivanpah Valley, and Shadow Valley) totaling 312,485 acres (see Table 2-3) as shown on Figure 6e, Chapter 7. The three units would be designated as ACECs, and the existing wildlife habitat management areas (WHMAs) would be deleted. Category I habitat would be eliminated in Northern Ivanpah Valley, reduced in Ivanpah Valley (eliminated north of the second main linear utility running across the southern extent of Ivanpah Dry Lake) and in Shadow Valley (eliminated west of Bull Spring Wash and Turquoise Mountain Road), and adjusted elsewhere slightly to coincide with the critical habitat boundaries. These units include all critical habitat in the NEMO Planning Area except approximately 12,700 acres west of Bull Run Wash (Turquoise Mountain Road). All tortoise habitat outside of the DWMA would be assigned Category III tortoise habitat.

Change MUC M to L in three units (Piute-Fenner, Shadow Valley, and Northern Ivanpah Valley) totaling 30,010 acres. Changes in MUC acreages are shown in Table 2-4d. (Refer to Chapter 7, Figure 6e for a map of the Preferred Alternative)

Table 2-4d: Desert Tortoise Conservation and Recovery Identify Area MUC			
Preferred Designate 3 ACECs			
Desert Tortoise DWMA Unit	Acres L or C	Acres M	Total Acres
Piute-Fenner Unit	169,890	3,960	173,850
Ivanpah Valley Unit	37,280	0	37,280
Modified Shadow Valley Unit	75,305	26,050	101,355
N. Ivanpah Unit	0	0	0
Total	279,195	30,010	312,485

2.2.5.2 General Management Strategy

Same as Alternative 3

2.2.5.3 Vehicle Management

Same as Alternative 3

2.2.5.4 Grazing Management

Same as Alternative 3. (Refer to Table 2-4 for a list of affected allotments and Appendix E for proposed terms and conditions for Cattle Grazing)

2.2.5.5 Burro Management

Same as Alternative 3

2.2.5.5 Land Tenure

Same as Alternative 2.

2.2.6 Implementation Strategy for Desert Tortoise Recovery

The implementation strategy for desert tortoise recovery is provided in Appendix B. It identifies time frames and commitments associated with components of the alternative recovery strategies that require substantial Federal and State resources. These commitments are specific to implementation of desert tortoise recovery in the NEMO planning area, except as identified to address follow-up coordination issues.

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Summary of Alternatives for Desert Tortoise Recovery (Amendments 2,3,4)									
Issue	Alt # 1 (No Action)		Alt # 2 (Mod. Recov. Plan, Two Focal Populs.)	Alt # 3 (Two Focal Populs.)	Alt # 4 (One Focal Popul.)	Alt # 5 (Preferred)			
Designate Wildlife Management Area units and Identify MUC (Amendment 2)	Utilize existing DT mgt. direction set forth in the BLM <i>Rangewide Management Plan</i> and BLM <i>California Statewide Tortoise Management Policy</i> on 354,300 acres of Cat I DT habitat with no identified DWMA or additional mgt. strategies.		Designate 2 DWMA's consisting of 4 units totaling 354,300 acres	Designate 2 DWMA's consisting of 3 units totaling 325,190 acres	Designate 2 DWMA's consisting of 2 units totaling 211,130 acres	Alternative 3: modified, Designate 2 DWMA's consisting of 3 units to exclude: the Turquoise Mountain area west of Bull Spring Wash and Turquoise Mtn Road in the Shadow Valley Unit.			
	Management units	(CAT 1)	Management units	(CAT 1)	Management units	(CAT 1)	Management units	(CAT 1)	
	Piute-Fenner	173,850	Piute-Fenner	173,850	Piute-Fenner	173,850	Piute-Fenner	173,850	
	Ivanpah Valley	37,280	Ivanpah Valley	37,280	Ivanpah Valley	37,280	Ivanpah Valley	37,280	
	Shadow Valley	114,060	Shadow Valley	114,060	Shadow Valley	114,060	Shadow Valley	101,355	
N. Ivanpah	29,110	N. Ivanpah	29,110	CAT I Total	325,190	CAT I Total	211,130	CAT I Total	312,485
CAT I Total	354,300	CAT I Total	354,300						
	305,658 - MUC L or C 48,642 - MUC M (232,000 - WHMA)		305,658 – MUC L or C 48,642 – MUC M to L (Change) 354,300 - ACEC 354,300 - CAT I - DWMA	282,477 – MUC L or C 42,713 – MUC M to L (Change) 325,190 – ACEC 325,190 – CAT I - DWMA	207,170 – MUC L or C 3,960 – MUC M to L (Cng) 211,130 - ACEC 211,130 - CAT I -DWMA	279,195 - MUC L or C 30,010 – MUC M to L(Cng) 312,485 – ACEC 312,485 – CAT I - DWMA			
General Management Strategy	Utilize Existing Mgt. strategies: -Existing biological opinions and agreements -Existing local raven mgt. Activities, defer to coordinated multi-agency program to be developed in the future -Consultation case-by-case except for a few small programmatic agreements (e.g., small mining (10 ac.), small disturbance (2 ac)) -Statewide MOU for compensation		- Utilize a Programmatic consultation in all DT habitat There are 3 triggers for consultations: 1. Any proposal that would disturb more than 100 acres. 2. Any project for which the NEPA mechanism is an EIS, regardless of the size of the project 3 Any project which can only be considered through a plan amendment process, regardless of the size of the project. This requirement applies to all areas of tortoise habitat - both inside and outside DWMA's. -Cumulative new surface disturbance limits 1%; -Project specific disturbance limits 100 acres. -Adopt DT strategy prescriptions & Mitigation (APP A) -A cooperative phased raven mgt. program - Change the compensation ratio in all Category I habitat to 5:1.	Same as Alt 2 except: Utilize a Programmatic consultation in all DT habitat to cover activities of 100 acres or less Proposals that require separate consultations include: Any proposal that would disturb more than 100 acres except in the following instance: a proposal for an electrical transmission line or pipeline within an existing CDCA Plan utility corridor for which the NEPA mechanism is an EA and not an EIS. - Change the compensation ratio in all Category I habitat to 5:1.	Same as Alt 2 except: Utilize a Programmatic consultation in all DT habitat . The first trigger would be modified as follows: Any proposal that would disturb more than 100 acres (if not already the figure used), except in the following instance: a proposal for an electrical transmission line or pipeline within an existing CDCA Plan utility corridor for which the NEPA mechanism is an EA and not an EIS. - Cumulative new surface disturbance limits 3% with same triggers as Alt 3. -Project specific 250 ac - CAT I & III inside and outside of DWMA's - A comprehensive phased raven mgt program where lethal removal would not occur. - Change the compensation	Alternative 3			

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Summary of Alternatives for Desert Tortoise Recovery (Amendments 2,3,4)					
Issue	Alt # 1 (No Action)	Alt # 2 (Mod. Recov. Plan, Two Focal Populs.)	Alt # 3 (Two Focal Populs.)	Alt # 4 (One Focal Popul.)	Alt # 5 (Preferred)
				ratio in all Cat I habitat to 5:1.	
Vehicle Management	<p>Route designation would occur in all Cat I habitat, consistent with Federal regulation and CDCA Plan guidance, based on the existing route inventory.</p> <ul style="list-style-type: none"> Rules for parking and camping would remain unchanged: stopping and parking along routes of travel is limited to within 300 feet of the route; Specific areas may be signed Open or Closed to protect sensitive resources. Use of washes is governed by area designations. In limited areas, vehicle use in desert washes is governed by the multiple-use class. Additionally, washes as access routes may have travel limitations such as speed limits or seasonal closure imposed to protect resources. The open camping zone along roads within sensitive area (e.g. critical habitat) may be limited to 100 feet. 	<p>Designate routes of travel in the four proposed units of the DWMA, consistent with Federal regulation and the existing route inventory. Rules for parking and camping would be modified as follows:</p> <ul style="list-style-type: none"> Parking and camping will be allowed within 50 feet of route centerline within the proposed DWMA All navigable washes would be designated as Closed. Interpretive signing and informational kiosks will be installed. 	<p>Same as Alt 2 except:</p> <ul style="list-style-type: none"> Parking and camping will be allowed within 100 feet of route centerline within the proposed DWMA. Where navigable washes are designated open or limited, parking and camping will be allowed only within the banks of the wash. 	<p>Same as Alt 2 except:</p> <ul style="list-style-type: none"> Parking and camping will be allowed within 100 feet of route centerline within the proposed DWMA. 	Alternative 3
Livestock Grazing	<p>Utilize Fallback Standards and Guidelines CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions.</p>	<p>Utilize Regional Standards and Guidelines for Grazing Management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions. For allotments within DWMA:</p> <ul style="list-style-type: none"> Terminate grazing authorizations and the portion of the allotment within DWMA Develop new allotment boundaries, where feasible, from portions of affected allotments outside of the DWMA. 	<p>Utilize Regional Standards and Guidelines for Grazing Management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions. For allotments within the DWMA:</p> <ul style="list-style-type: none"> Allow voluntary relinquishment of grazing leases, and related authorizations. Temporary nonrenewable grazing use (perennial) will not be authorized. Cattle shall be removed from the DWMA as per the grazing strategy from 3/15 to 11/1 during years when ephemeral forage production is less than 230 pounds per acre. The grazing strategy will be developed within a year and implemented within two years. The Strategy shall be a written plan detailing the area of removal, natural cattle movements, existing and potential improvements, and other constraints of cattle management. 	<p>Utilize Regional Standards and Guidelines for Grazing Management, CDCA Plan, allotment management plans, and terms and conditions from the existing USFWS biological opinions. For allotments within DWMA:</p> <ul style="list-style-type: none"> Allow voluntary relinquishment of grazing leases and related authorizations. Terminate ephemeral allotments and terminate ephemeral authorization for ephemeral/perennial allotments. 	Same as Alt 3

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Summary of Alternatives for Desert Tortoise Recovery (Amendments 2,3,4)					
Issue	Alt # 1 (No Action)	Alt # 2 (Mod. Recov. Plan, Two Focal Populs.)	Alt # 3 (Two Focal Populs.)	Alt # 4 (One Focal Popul.)	Alt # 5 (Preferred)
			<ul style="list-style-type: none"> • Terminate ephemeral allotments and terminate ephemeral authorization for ephemeral/perennial allotments. 		
Wild horse & Burro	Utilize existing CDCA Plan management and the existing East Mojave HMA Plan to manage burros within DT habitat including those within critical and /or Cat I habitat, with additional management parameters (terms and conditions).	Eliminate the Clark Mountain HMA, since most of the area which has been identified for burro management in the CDCA Plan, is located in the Shadow Valley Unit of the DWMAs. Burros would be removed.	Modify the Clark Mountain HMA to exclude that area located within the proposed DWMAs. The reestablished HMA boundary would be adjacent to the Nevada border north of I-15, in northern Ivanpah Valley. The AML would be 60 burros, per existing CDCA Plan considerations, pending the outcome of a revised 5-year carrying capacity analysis.	Same as Alternative 1 (No Action) existing management practices.	Alternative 3
Land Tenure	Use current land acquisition strategies Retain all CAT I DT habitat	Acquire all lands in the DWMAs from willing sellers	Same as Alternative 2	Same as Alternative 2	Alternative 2

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Table 2-5: Summary of Grazing Alternatives								
Allotment	Alternative 1 (No Action)				Alt 2--Mod. Recov. Plan	Alt 3--(Two Focal Populs.)	Alt 4--(One Focal Populs.)	Alt 5 -- Preferred
Name & #	PL Acres	AUMs	E/P	Mgt.				
Clark Mountain, 09003	97,560 <u>1/</u>	1,303 <u>1/</u>	E/P	A, B, C	Cancel grazing use and boundary of allotment within the DWMA	No Change.	No Change.	No Change.
Colton Hills, 09202	0 <u>2/</u>	0 <u>2/</u>	E/P	D	D	D	D	D
Crescent Peak, 09013	6,719 <u>1/</u>	359 <u>1/</u>	E/P	A, B, C	No Change.	No Change.	No Change.	No Change.
Deep Springs, 05062	43,932	1,250	P	A	No Change.	No Change.	No Change.	No Change.
Eureka Valley, 05001	17,000	0	E	A	No Change.	No Change.	No Change.	No Change.
Fish Lake Valley, 0096	577	52	P	A	No Change.	No Change.	No Change.	No Change.
Gold Valley, 09212	0 <u>2/</u>	0 <u>2/</u>	E/P	D	D	D	D	D
Horsethief Spgs, 09007	150,140	2,424	E/P	A	No Change.	No Change.	No Change.	No Change.
Hunter Mtn, 05013	53,920	0	P	A, B	No Change.	No Change.	No Change.	No Change.
Jean Lake, 09017	9,806	300	E/P	A, B, C	Cancel grazing use and boundary of allotment within the DWMA.	230 lbs. Of ephemeral forage on all allotments from 3/15-11/1 or remove livestock, and potentially reduce AUMs to 211. No temporary non-renewable	Cancel ephemeral use, and grant on a case-by-case basis lease relinquishment.	Same as Alt 3
Kessler Springs, 09008	14,161 <u>1/</u>	481 <u>1/</u>	E/P	A, B, C	Cancel grazing use and boundary of allotment within the DWMA.	230lbs. Of ephemeral forage on all allotments from 3/15-11/1 or remove livestock, and potentially reduce AUMs to 432. No temporary non-renewable	Cancel ephemeral use, and grant on a case-by-case basis lease relinquishment.	Same as Alt 3
Last Chance, 05061	35,532	1,639	P	A	No Change.	No Change.	No Change.	No Change.
Oasis, 05059	22,968	656	P	A	No Change.	No Change.	No Change.	No Change.
Pahrump Valley, 08000	26,952	353	E/P	A, C	No Change.	No Change.	No Change.	No Change.
Piute Valley, 09004	20,145	0	E	A, B, C	Cancel grazing use and boundary of allotment within the DWMA.	230lbs. Of ephemeral forage on all allotments from 3/15-11/1 or remove livestock. No temporary non-renewable	Cancel ephemeral use, and grant on a case-by-case basis lease relinquishment.	Same as Alt 3
Round Valley, 09726	0 <u>2/</u>	0 <u>2/</u>	E/P	D	D	D	D	D
South Oasis, 05063	15,173	477	P	A, B	No Change.	No Change.	No Change.	No Change.
Valley View, 09000	31,575 <u>1/</u>	849 <u>1/</u>	E/P	A, B, C	Cancel grazing use and boundary of allotment within the DWMA.	230lbs. Of ephemeral forage on all allotments from 3/15-11/1 or remove livestock, and potentially reduce AUMs to 713. No temporary non-renewable	Cancel ephemeral use, and grant on a case-by-case basis lease relinquishment.	Same as Alt 3
Valley Wells, 09009	223,007 <u>1/</u>	4,272 <u>1/</u>	E/P	A, B, C	Cancel grazing use and boundary of allotment within the DWMA.	230lbs. Of ephemeral forage on all allotments from 3/15-11/1 or remove livestock, and potentially reduce AUMs to 3,706. No temporary non-renewable	Cancel ephemeral use, and grant on a case-by-case basis lease relinquishment.	Same as Alt 3
White Wolf, 05060	13,733	307	P	A	No Change.	No Change.	No Change.	No Change.
Total	873,479	17,886						

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- 1/ A portion of the allotment is administered by US National Park Service (NPS) after designation of the Mojave National Preserve (MNP). The AUMs have been adjusted down based on the pro-rata share of BLM and NPS administration.
- 2/ All of the allotment administered by NPS after designation of the MNP (shaded gray). Delete allocations and area for this allotment from CDCA Plan.
- 3/ The remainder of these two allotments administered by the BLM have been proposed for cancellation when certain conditions are met. This decision is dependent upon the NPS terminating its portion of these two allotments, Congress will be notified, and range improvements will be reviewed for wildlife or other uses.
- A. Grazing management activities are directed and guided by the *California Desert Conservation Area Plan*, 1980.
- B. Grazing activities are managed under an existing allotment management plan.
- C. Mitigation measures are prescribed for cattle grazing activities in desert tortoise habitat. Mitigation measures for grazing activities are listed under U.S. Fish and Wildlife Service's two biological opinions labeled *Biological Opinion for Cattle Grazing on 25 Allotments in the Mojave Desert, Riverside and San Bernardino Counties, California* (1-8-94-F-17, extended 5/17/99), and *Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Land Management and National Park Service in Mojave Desert Tortoise Critical Habitat* (1-5-96-F-296R).
- D. This allotment is managed by the NPS, and for current and future grazing management refer to the recently published *Draft General Management Plan, Environmental Impact Statement, Mojave National Preserve, August 1998*.
- E. Types of rangeland vegetation that consistently produces livestock primarily composed of annual forbs and grasses. Forage production can vary extremely from year to year, which requires management flexibility to prescribe stocking rate and period of use.
- P. Types of rangeland vegetation that consistently produces livestock forage primarily composed of perennial shrubs and grasses. This type of forage production allows consistent forage allocation for grazing use.

Table 2-6: Statistics for BLM and NPS Administered Allotments (acres)

Allotment	BLM Allotments				NPS Allotments				Total			
Allotment Name & No.	BLM	Private	State	Total	NPS	Private	State	Total	Federal	Private	State	Total
Clark Mountain, 9003	97,560	871	5,537	103,968	15,176	739	69	15,984	112,736	1,610	5,606	119,952
Piute Valley, 9004	20,145	2,049	1,338	23,532	22,823	1,463	571	24,857	42,968	3,512	1,909	48,389
Valley View, 9000	31,575	1,961	988	34,524	280,519	7,308	7,600	295,427	312,094	9,269	8,588	329,951
Valley Wells, 9009	223,007	3,364	10,531	236,902	19,804	323	1,057	19,804	242,811	3,687	11,588	258,086

Table 2-7: BLM Allotments Within Desert Wildlife Management Areas

Proposed ACEC	BLM	Private	State	Total Acres	Allotments
Shadow Valley	107,072	1,768	5,220	114,060	Valley Wells
Modified Shadow Valley	95,670	1,748	3,937	101,355	Valley Wells
North Ivanpah Valley	27,298	660	1,152	29,110	Clark Mountain
Ivanpah Valley	34,830	2,450	0	37,280	Valley View, Kessler Springs, & Jean Lake
Piute-Fenner Valley	130,474	37,210	6,166	173,850	Piute Valley

2.3 AMARGOSA VOLE CONSERVATION AND RECOVERY

Five areas along the Amargosa River have been identified for potential implementation of various Amargosa vole conservation strategies. Two of these are existing BLM ACECs: Grimshaw Lake Natural Area, which includes almost half of the critical habitat designated for this species; and Amargosa Canyon Natural Area, which represents the southern extent of known historic habitat for this species. A third area includes the remainder of designated Amargosa Vole critical habitat and extends from the southern end of Grimshaw Lake Natural Area to the northern end of Amargosa Canyon Natural Area, connecting the two. A fourth area extends from the Grimshaw Lake Natural Area northward to incorporate additional riparian habitat found along the central Amargosa River.

A fifth area, located roughly 30 miles north of these areas on the Amargosa River, is referred to as the Upper Amargosa Reach. It includes upstream flow and source waters for the Central Amargosa River, important mesquite bosque wildlife habitat and ephemeral wetlands.

The alternatives include additional historic range of the Amargosa vole as well as adjacent riparian and mesquite bosque areas that are not currently known habitat for the Amargosa vole. Maintenance of water quantity and quality, particularly from springs and upstream riverine water flow are considered to be essential for the maintenance of Amargosa vole habitat.

Alternatives were developed that address vole recovery issues to the degree feasible at this time. They were also developed to be site-specific, as well as watershed-based, in order to facilitate Amargosa vole recovery, ecosystem planning and multiple-use management on public lands. There is currently insufficient information on population status, dynamics and other related issues to know what it will take to assure the Amargosa vole's continued existence. All alternatives would continue case-by-case consultations on proposed activities. A programmatic consultation may be developed later.

In addition, during analysis of Amargosa vole alternatives, the Amargosa River was determined to be potentially eligible under the National Wild and Scenic Rivers (WSR) System. Vole recovery alternatives include proposals for consideration of WSR eligibility and further suitability studies that would be carried out in conjunction with ACEC Plan development. This issue is addressed separately in Section 2.11 of this Chapter.

2.3.1 ALTERNATIVE 1 (NO ACTION)

2.3.1.1 Amargosa Vole Management Area Options

Continue existing management of all Amargosa vole habitat on public lands with no additional designations, strategies or associated special management. Alternative 1 (No Action) consists of activities already identified in the CDCA Plan for the conservation and recovery of threatened and endangered species and in follow-up management plans developed for the ACECs (Amargosa Canyon and Grimshaw Lake, total 9,310 acres).

2.3.1.2 Amargosa Vole Proposed Management Prescriptions

Utilize existing CDCA Plan management direction on public lands in all known Amargosa vole habitat. Route designation would occur in MUC Limited areas, including Amargosa vole critical habitat, as time and personnel permit. Strategies and measures identified in existing ACEC Plans would remain in effect and would primarily consist of riparian restoration activities, monitoring of identified vole populations and associated wetlands vegetation, and recreation management. These ACEC management plans were prepared prior to Federal listing of the vole, designation of critical habitat, and development of the Amargosa Vole Recovery Plan. Conference and consultation with State and Federal wildlife agencies, respectively, on measures in the CDCA Plan and existing ACEC Management Plans, or any action that could affect the Amargosa vole, would continue.

2.3.2 ALTERNATIVE 2

2.3.2.1 Amargosa Vole Management Area Options

Designate the Amargosa River ACEC (Refer to Chapter 7, Figure 9a and b).

This alternative could affect 10,450 acres of public lands in addition to the existing Amargosa Canyon and Grimshaw Lake Natural Areas ACECs including:

- suitable riparian habitat located east of the current Amargosa Canyon ACEC (2,400 acres in the China Ranch Wash area);
- other suitable riparian habitat located upstream from these areas to a point located five miles north of Shoshone including the Shoshone Cave Whip-scorpion Wildlife Habitat Management Area (WHMA) (5,920 acres);
- Upper Amargosa Mesquite Bosque WHMA (950 acres); and
- designated Amargosa vole critical habitat not in the existing ACECs (1,180 acres of public lands).

This alternative would also identify State (1,280 acres) and private lands (1,360 acres) in addition to the 630 acres already identified in the existing ACEC Plans for possible Federal exchange or acquisition from willing landowners and inclusion in the Amargosa River ACEC, including the following:

- 400 acres private lands east of Grimshaw Lake;
- 200 acres private lands within the Amargosa Canyon ACEC;
- 320 acres of State lands and 160 acres private lands that are critical habitat between Grimshaw Lake and Amargosa Canyon ACECs;
- 320 acres of State lands in the Old Spanish Trail area;
- 640 acres of State lands in the China Ranch Wash area; and
- 600 acres of private land along the Amargosa River in the Shoshone area.

2.3.2.2 Amargosa Vole Proposed Management Prescriptions

Adopt strategies and measures prescribed in the existing Amargosa Canyon and Grimshaw Lake Natural Area ACEC Management Plans, as modified by recommended strategies and actions specified in the Amargosa Vole Recovery Plan, as a single coordinated management plan, focused on riparian, ephemeral wetland and mesquite bosque resource protection and monitoring along the entire length of the proposed Amargosa River ACEC. (Refer to Appendix H for an outline of these recommended strategies and actions and further details may be found in the existing ACEC Plans). The management plan for this ACEC would be integrated, augmented and adjusted to address additional issues of concern for long-term management of the vole and other sensitive, threatened and endangered species occurring along this riverine system, within three years. This ACEC Management Plan would also include a programmatic consultation with the USFWS, should the scope of actions and activities detailed in that plan warrant such consultation. Issues, strategies and measures to be addressed in this proposed ACEC Management Plan would include:

- maintain viable populations of Amargosa vole;
- develop monitoring, and in general, additional information about Amargosa vole populations and habitat use;
- conduct additional plant and wildlife inventory work to identify all locations of special status species in the affected management unit, and develop appropriate measures to protect those found;
- develop strategies for riparian resource protection and monitoring in cooperation with private landowners and other Federal, State, and local agencies;
- identify mechanisms to track progress in reaching the goals specified in the Amargosa Vole Recovery Plan;
- conserve and protect Amargosa watershed, riparian, ephemeral wetland and mesquite bosque resources;
- conduct route designation in conjunction with the ACEC Management Plan.
- implement a land tenure strategy, targeting suitable Amargosa vole habitat within the expanded ACEC (Refer to Appendix N). Where land acquisition or exchange is not identified, conservation easements, cooperative riparian management strategies, and other measures would be utilized. BLM would work with interested landowners to maximize the potential for recovery of the Amargosa vole;
- protect riparian habitat utilized by four listed neotropical migratory bird species;
- conserve other natural area values; and
- develop a suitability determination for Wild and Scenic River designation in areas determined eligible in this planning effort. (Refer to Appendix O)

ALTERNATIVE 3 (Preferred)

2.3.2.2 Amargosa Vole Management Area Options

Alternative 2, as modified below: Designate the Amargosa River ACEC (Refer to Chapter 7, Figure 9a and b). This alternative would affect 8,050 acres of public lands in addition to the existing ACEC acreages, including:

- suitable riparian habitat located east of the current Amargosa Canyon ACEC (2,400 acres in the China Ranch Wash area);
- other suitable riparian habitat located upstream from these areas to a point located one mile south of Shoshone (3,520 acres);
- Upper Amargosa Mesquite Bosque WHMA (950 acres); and
- designated Amargosa vole critical habitat not in the existing ACECs (1,180 acres of public lands).

This alternative is the same as Alternative 2 except lands are excluded in an area of the river from one mile south of Shoshone to a point five miles north of Shoshone and an existing 40 acre sand and gravel pit (T.21N. R. 7E, Sec 29, Lot 1 abutting Highway 127).

It would also identify State (1,280 acres) and private lands (760 acres) in addition to the 630 acres already identified in the existing ACEC Plans for possible Federal exchange or acquisition from willing landowners and inclusion in the Amargosa River ACEC. This would include the same areas for acquisition as Alternative 2 except lands in the Shoshone/Tecopa area (approximately 600 acres).

2.3.2.3 Amargosa Vole Proposed Management Prescriptions

Same as Alternative 2.

2.3.3 ALTERNATIVE 4

2.3.4.1 Amargosa Vole Management Area Options

Create a new Amargosa vole ACEC with boundaries coinciding to designated Amargosa vole critical habitat in the central Amargosa River watershed comprising 4,520 acres. The existing boundaries of the Amargosa Canyon and Grimshaw Lake Natural Area ACECs would be modified to exclude designated critical habitat: including 205 acres of the existing Amargosa Canyon ACEC and 1,055 acres of the existing Grimshaw Lake ACEC. Other existing ACEC and HMP boundaries would be unaffected. The proposed Amargosa vole ACEC would be dedicated to conservation of Amargosa vole populations and habitat. (Refer to Chapter 7, Figure 9a and b)

It would also identify State (320 acres) and private lands (160 acres) for possible Federal exchange or acquisition from willing landowners and inclusion in the Amargosa River ACEC.

2.3.4.2 Amargosa Vole Proposed Management Prescriptions

Adopt the Amargosa vole Recovery Plan recommendations as an overall management strategy for the proposed Amargosa Vole ACEC. The management plan for this ACEC would focus on Amargosa vole issues and would be completed within three years. This ACEC Management Plan would also include a programmatic consultation with the USFWS, if the scope of actions and activities detailed in that plan warrant such consultation. Issues, strategies and measures to be addressed in this proposed ACEC Management Plan would include:

- maintain viable populations of Amargosa vole;
- develop monitoring, and in general, additional information about Amargosa vole populations and habitat use;
- identify mechanisms to track progress in reaching the goals specified in the Amargosa vole Recovery Plan and provide guidelines for multiple use, if needed;
- conduct route designation in conjunction with the ACEC Management Plan.
- implement a land tenure strategy, targeting suitable Amargosa vole habitat within the expanded ACEC. (Refer to Appendix N); and
- develop a suitability determination for Wild and Scenic River designation in areas determined eligible in this planning effort. (Refer to Appendix O)

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SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES			
Amargosa Vole Conservation and Recovery - Management Area Options (Amendment # 5)			
Alternative 1 (No Action)	Alternative 2	Alternative 3 (Preferred)	Alternative 4
Continue existing management of all Amargosa vole habitat on public lands with no additional designations, strategies or associated special management. Alternative 1 (No Action) consists of activities already identified in the CDCA Plan for the conservation and recovery of threatened and endangered species and in follow-up management plans developed for the ACECs (Amargosa Canyon and Grimshaw Lake ACECs).	<p>Designate the Amargosa River ACEC. This alternative could affect 10,450 acres of public lands in addition to the existing Amargosa Canyon and Grimshaw Lake Natural Areas ACECs including:</p> <ul style="list-style-type: none"> • suitable riparian habitat located east of the current Amargosa Canyon ACEC (2,400 acres in the China Ranch Wash area); • other suitable riparian habitat located upstream from these areas to a point located five miles north of Shoshone including the Shoshone Cave Whip-scorpion Wildlife Habitat Management Area (WHMA) (5,920 acres); • Upper Amargosa Mesquite Bosque WHMA (950 acres); • designated Amargosa vole critical habitat not in the existing ACECs (1,180 acres of public lands); and <p>It would also identify State (1,280 acres) and private lands (1,360 acres in addition to the 630 acres already identified in the existing ACEC Plans) for possible Federal exchange or acquisition from willing landowners and inclusion in the Amargosa River ACEC, including the following:</p> <ul style="list-style-type: none"> • 400 acres private lands east of Grimshaw Lake; • 200 acres private lands within the Amargosa Canyon ACEC; • 320 acres of State lands and 160 acres private lands that are critical habitat between Grimshaw Lake and Amargosa Canyon ACECs; • 320 acres of State lands in the Old Spanish Trail area; • 640 acres of State lands in the China Ranch Wash area; and • 600 acres of private land along the Amargosa River in the Shoshone area. 	<p>Alternative 2, as modified: Designate the Amargosa River ACEC. This alternative would affect 8,050 acres of public lands in addition to the existing ACEC acreages.</p> <p>This alternative is the same as Alternative 2 except lands are excluded in an area of the river from one mile south of Shoshone to a point five miles north of Shoshone and an existing 40 acre sand and gravel pit (T. 21N. R. 7E, Sec 29, Lot 1 abutting Highway 127).</p> <p>It would also identify State (1,280 acres) and private (760 acres in addition to the 630 acres already identified in the existing ACEC Plans) lands for possible Federal exchange or acquisition from willing landowners and inclusion in the Amargosa River ACEC. This would include the same areas for acquisition as Alternative 2 except lands in the Shoshone/Tecopa area (approximately 600 acres).</p>	<p>Create a new Amargosa vole ACEC with boundaries coinciding to designated Amargosa vole critical habitat in the central Amargosa River watershed comprising 4,520 acres. The existing boundaries of the Amargosa Canyon and Grimshaw Lake Natural Area ACECs would be modified to exclude designated critical habitat: including 205 acres of the existing Amargosa Canyon ACEC and 1,055 acres of the existing Grimshaw Lake ACEC. Other existing ACEC and HMP boundaries would be unaffected. The proposed Amargosa vole ACEC would be dedicated to conservation of Amargosa vole populations and habitat. (Refer to Chapter 7, Figure 9a and b)</p> <p>It would also identify State (320 acres) and private lands (160 acres) for possible Federal exchange or acquisition from willing landowners and inclusion in the Amargosa vole ACEC.</p>

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SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES			
Amargosa Vole Conservation and Recovery - Management Prescriptions (Amendment # 5)			
Alternative 1 (No Action)	Alternative 2	Alternative 3 (Preferred)	Alternative 4
Utilize existing CDCA Plan management direction on public lands in all known Amargosa vole habitat. Route designation would occur in MUC Limited areas, including Amargosa vole critical habitat, as time and personnel permit. Strategies and measures identified in existing ACEC Plans would remain in effect and would primarily consist of riparian restoration activities, monitoring of identified vole populations and associated wetlands vegetation, and recreation management. These ACEC management plans were prepared prior to Federal listing of the vole, designation of critical habitat, and development of the Amargosa Vole Recovery Plan. Conference and consultation with State and Federal wildlife agencies, respectively, on measures in the CDCA Plan and existing ACEC Mgt Plans, or any action that could affect the Amargosa vole, would occur.	<p>Adopt strategies and measures prescribed in the existing Amargosa Canyon and Grimshaw Lake Natural Area ACEC Management Plans, as modified by recommended strategies and actions specified in the Amargosa Vole Recovery Plan, into a single coordinated management plan, focused on riparian ephemeral wetland and mesquite bosque resource protection and monitoring along the entire length of the proposed Amargosa River ACEC. (Refer to Appendix H for an outline of these recommended strategies and actions). The management plan for this ACEC would be integrated, augmented and adjusted to address additional issues of concern for long-term management of the vole and other sensitive, threatened and endangered species occurring along this riverine system, within three years. This ACEC Management Plan would also include a programmatic consultation with the USFWS, should the scope of actions and activities detailed in that plan warrant such consultation. Issues, strategies and measures to be addressed in this proposed ACEC Management Plan would include:</p> <ul style="list-style-type: none"> • maintain viable populations of Amargosa vole; • develop monitoring, and in general, additional information about Amargosa vole populations and habitat use; • conduct additional plant and wildlife inventory work to identify all locations of special status species in the affected management unit, and develop appropriate measures to protect those found; • develop strategies for riparian resource protection and monitoring in cooperation with private landowners and other Federal, State, and local agencies; • identify mechanisms to track progress in reaching the goals specified in the Amargosa Vole Recovery Plan; • conserve and protect Amargosa watershed, riparian, ephemeral wetland and mesquite bosque resources; • conduct route designation in conjunction with the ACEC Management Plan. • implement a land tenure strategy, targeting suitable Amargosa vole habitat within the expanded ACEC (Refer to Appendix N). Where land acquisition or exchange is not identified, conservation easements, cooperative riparian management strategies, and other measures would be utilized. BLM would work with interested landowners to maximize the potential for recovery of the Amargosa vole; • protect riparian habitat utilized by four listed neotropical migratory bird species; • conserve other natural area values; and • develop a suitability determination for Wild and Scenic River designation in areas determined eligible in this planning effort. (Refer to Appendix O) 	<ul style="list-style-type: none"> • Same as Alternative 2. 	<p>Adopt the Amargosa vole Recovery Plan recommendations as an overall management strategy for the proposed Amargosa Vole ACEC. The management plan for this ACEC would focus on Amargosa vole issues and would be completed within three years. This ACEC Management Plan would also include a programmatic consultation with the USFWS, if the scope of actions and activities detailed in that plan warrant such consultation. Issues, strategies and measures to be addressed in this proposed ACEC Management Plan would include:</p> <ul style="list-style-type: none"> • maintain viable populations of Amargosa vole; • develop monitoring, and in general, additional information about Amargosa vole populations and habitat use; • identify mechanisms to track progress in reaching the goals specified in the Amargosa vole Recovery Plan and provide guidelines for multiple use, if needed; • conduct route designation in conjunction with the ACEC Management Plan. • implement a land tenure strategy, targeting suitable Amargosa vole habitat within the expanded ACEC. (Refer to Appendix N); and • develop a suitability determination for Wild and Scenic River designation in areas determined eligible in this planning effort. (Refer to Appendix O)

2.4 T&E PLANTS IN THE LOWER CARSON SLOUGH

The following alternatives provide a public lands strategy to manage listed and sensitive plant species in the Lower Carson Slough- Northern Franklin Playa vicinity. Portions of this public land area have been designated critical habitat for the endangered Amargosa niterwort and the threatened Ash Meadows gumplant and are known to support the BLM-designated sensitive Tecopa birdsbeak as well. The federally threatened spring loving centaury may also occupy this area.

Three areas in particular, all located immediately adjacent to the California-Nevada Stateline near Death Valley Junction have been identified for potential application of conservation strategies for these threatened and endangered plant species. The critical habitat area designated for the Amargosa niterwort in the NEMO Planning Area is the only critical habitat that exists for this species. Together these areas comprise the Lower Carson Slough tributary to the Amargosa River.

The most critical issue for the endangered (Federal and State) Amargosa niterwort, according to the USFWS, is interruption of the water supply for its habitat. The habitat for this species is saline and alkaline sinks located near the terminus of spring seepages. The rarity of the soil and water conditions limit the geographical distribution of the species. All designated critical habitat for this species occurs on BLM-managed lands that are classified as MUC Limited or Moderate.

The Ash Meadows gumplant and the spring loving centaury, if present, are associated with areas of perched groundwater and are also very sensitive to depletion of spring water discharge. There are also concerns about over-commitment of the aquifer in Nevada. Because of the linkage between the Lower Carson Slough and the Amargosa River, an alternative addressing development of an Amargosa River watershed-based management strategy is also included in the range of alternatives.

The Chicago Valley Wild Horse Herd Management Area overlaps the Salt and Brackish Water Marsh Unusual Plant Assemblage consisting of a salt and brackish water marsh which supports the Amargosa niterwort. The horses also range on lands to the south of Old Meadows Road. Management prescriptions for wild horses and burros are covered in the Chicago Valley Herd Management Area Plan. The current AML is 28 wild horses and 28 burros. The best available information on population is four horses and four burros.

At this time, insufficient information exists on the two listed plant species to prepare a programmatic biological opinion for activities anticipated to occur on these lands. Therefore, case-by-case consultation would be required for activities proposed within their habitat. A programmatic opinion could be requested as a potential outcome of the future ACEC Management Plans prescribed for proposed management area alternatives.

2.4.1 ALTERNATIVE 1 (NO ACTION)

2.4.1.1 Lower Carson Slough T&E Plant Management Area Options

Utilize existing CDCA management direction on 1,540 acres of public lands designated as critical habitat (Refer to Chapter 7, Figure 10) for one endangered and one threatened plant species, without designation of additional management areas or associated special management strategies.

2.4.1.2 Lower Carson Slough T&E Management Direction And Strategies

Guidelines identified in the CDCA Plan for MUC L and M public lands would remain in effect, consultation requirements with the USFWS under the Endangered Species Act would occur on a project-by-project basis for actions potentially affecting these two critical habitat units and the three listed species. Terms and conditions would be developed through the consultation process to mitigate effects of any approved actions.

As resources permit, route designation would occur in MUC L public land areas of the Amargosa niterwort critical habitat and the entire Ash Meadows gumplant critical habitat unit. Consultation and conference with the USFWS and California Department of Fish and Game (CDFG) respectively, on any measures in the CDCA Plan, and on all proposed projects with the potential to affect these three listed plant species or adversely modify the two designated critical habitat units, on a project-by-project basis, would continue to occur. Special consideration would be given to sensitive resources including listed plants located within the Salt and Brackish Water Marsh Unusual Plant Assemblage during the NEPA process. Design structures and specific terms and conditions would be incorporated into proposals to avoid, compensate and/or mitigate potential impacts to listed plant species.

2.4.2 ALTERNATIVE 2

2.4.2.1 Lower Carson Slough T&E Plant Management Area Options

Combine the two critical habitat units for the Amargosa niterwort and Ash Meadows gumplant to create one Lower Carson Slough ACEC totaling 4,340 acres (Figure 10). The Lower Carson Slough ACEC would be dedicated to conservation of special status plant populations, Amargosa River watershed values, ephemeral wetlands, mesquite bosques and riparian areas. The ACEC would be comprised of the following elements:

Amargosa niterwort critical habitat	1,200 acres
Ash Meadows gumplant critical habitat	340 acres
Lower Carson Slough linkage	2,800 acres

2.4.2.2 Lower Carson Slough T&E Management Direction And Strategies

Establish a strategy for the proposed Lower Carson Slough ACEC to accomplish the conservation objectives for special status plants and riparian, ephemeral wetland and

mesquite bosque habitats. Integrate this strategy with that to be developed for the proposed Amargosa River ACEC (see Section 2.3).

The Lower Carson Slough ACEC Management Plan would be completed within 3 years and would include an Endangered Species Act consultation with the USFWS if the scope of actions warrants such consultation. Actions would include the following:

- identify locations of threatened, endangered and sensitive species and develop appropriate measures to protect them;
- develop a monitoring program for and determine habitat needs of Amargosa niterwort, Ash Meadows gumplant, spring-loving centaury and Tecopa birdsbeak;
- implement route designations;
- develop a strategy for conservation and monitoring of ephemeral wetlands, mesquite bosques and riparian areas in cooperation with adjacent private landowners and other Federal, State, and local agencies;
- identify mechanisms to track progress in reaching special status plant population and recovery goals;
- develop guidelines for road construction and other activities adjacent to special status plant populations;
- conduct route designation in conjunction with the ACEC Management Plan.
- administratively change the Appropriate Management Level (AML) for wild horses and burros from 28 horses and 28 burros to 12 horses and 0 burros to protect impacts on special status plants. This change reflects the current management strategy; and
- delineate the Amargosa aquifer and develop a strategy in cooperation with other Federal, State, and local agencies to safeguard surface and groundwater flows.

2.4.3 ALTERNATIVE 3

2.4.3.1 Lower Carson Slough T&E Plant Management Area Options

Create two separate ACECs, the Amargosa Niterwort ACEC (1200 acres) and the Ash Meadows gumplant ACEC (340 acres), made up of critical habitat for these plants within California (Figure 10). The ACECs would be dedicated to conservation of special status plant populations found in the ACECs and would include all designated critical habitat for the Amargosa niterwort and Ash Meadow gumplant within the NEMO Planning Area.

2.4.3.2 Lower Carson Slough T&E Management Direction And Strategies

Establish specific strategies for the proposed Amargosa niterwort ACEC and the proposed Ash Meadows gumplant ACEC. These strategies would be applicable to conservation of habitat supporting remaining listed plant populations in these ACECs, including all designated critical habitat for the Amargosa niterwort and Ash Meadows gumplant in the NEMO Planning Area. This ACEC Management Plan would be completed within three years and would include a programmatic Endangered Species Act consultation with the USFWS, if the scope of actions warrant such consultation. Issues and management actions would be the same as Alternative 2.

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SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES		
T&E Plant Conservation and Recovery: Lower Carson Slough - Management Area Options (Amendment # 6)		
Alternative 1 (No Action)	Alternative 2 (Preferred)	Alternative 3
Utilize existing CDCA management direction on 1,540 acres of public lands designated as critical habitat for one endangered and one threatened plant species	Combine the two critical habitat units for the Amargosa niterwort and Ash Meadows gumplant to create one Lower Carson Slough ACEC (4,340 acres). The Lower Carson Slough ACEC would be dedicated to conservation of special status plant populations in the ACEC, Amargosa River watershed values, ephemeral wetlands mesquite bosques and riparian areas. The ACEC would be comprised of the following elements: Amargosa niterwort critical habitat 1,200 acres Ash Meadows gumplant critical habitat 340 acres Lower Carson Slough linkage 2,800 acres	Create two separate ACECs, the Amargosa Niterwort ACEC (1200 acres) and the Ash Meadows gumplant ACEC (340 acres), made up of critical habitat for these plants within California. The ACECs would be dedicated to conservation of special status plant populations found in the ACECs and would include all designated critical habitat for the Amargosa niterwort and Ash Meadow gumplant within the NEMO Planning Area.

SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES		
T&E Plant Conservation and Recovery: Lower Carson Slough - Management Strategies		
Alternative 1 (No Action)	Alternative 2 (Preferred)	Alternative 3
<p>Utilize existing CDCA Plan management direction on 1,540 acres of public lands designated as critical habitat for two listed plants on adjacent lands where three listed plants may be located with without special plant management strategy. Guidelines identified in the CDCA Plan for MUC Limited and Moderate public lands would remain in effect, consultation requirements with the USFWS under the Endangered Species Act would occur on a project-by-project basis for actions potentially affecting these two critical habitat units and the three listed species. Terms and conditions mitigating effects of the actions would be developed through the consultation process.</p> <p>As resources permit, route designation would occur in MUC Limited public land areas in portions of the Amargosa niterwort critical habitat and the entire Ash Meadows gumplant critical habitat unit. Consultation and conference with the USFWS and California Department of Fish and Game (CDFG) respectively, on any measures in the CDCA Plan, and on all proposed projects with the potential to affect these three listed plant species or adversely modify the two designated critical habitat units, on a project-by-project basis, would continue to occur, design structures and specific terms and conditions would be incorporated into proposals to avoid, compensate and/or mitigate potential impacts to listed plant species.</p>	<p>Establish a strategy for the proposed Lower Carson Slough ACEC to accomplish the conservation objectives for special status plants and riparian ephemeral wetland and mesquite bosque habitats. Integrate this strategy with that to be developed for the proposed Amargosa River ACEC</p> <p>The Lower Carson Slough ACEC Management Plan would be completed within 3 years and would include an Endangered Species Act consultation with the USFWS if the scope of actions warrants such consultation. Actions would include the following:</p> <ul style="list-style-type: none"> • Identify locations of threatened, endangered and sensitive species and develop appropriate measures to protect them; • Develop a monitoring program for and determine habitat needs of Amargosa niterwort, Ash Meadows gumplant, spring-loving centaury and Tecopa birdsbeak; • Implement route designations; • Develop a strategy for conservation and monitoring of ephemeral wetlands, mesquite bosques and riparian areas in cooperation with adjacent private landowners and other Federal, State, and local agencies; and • Identify mechanisms to track progress in reaching special status plant population and recovery goals; • Conduct route designation in conjunction with the ACEC Management Plan. • Develop guidelines for road construction and other activities adjacent to special status plant populations; • Change the Appropriate Management Level (AML) for wild horses and burros from 28 horses and 28 burros to 12 horses and 0 burros to protect impacts on special status plants. This change reflects the current management strategy. <p>Delineate the Amargosa aquifer and develop a strategy in cooperation with other Federal, State, and local agencies to safeguard surface and groundwater flows.</p>	<p>This ACEC Management Plan would be completed within three years and would include a programmatic Endangered Species Act consultation with the USFWS, if the scope of actions warrant such consultation. Issues and management actions would be the same as Alternative 2.</p>

2.5 BAT CONSERVATION IN THE SILURIAN HILLS

The following alternatives provide a strategy on BLM-managed lands in the NEMO Planning Area to study and manage habitats for several designated sensitive bat species, and provide additional protection measures in the Silurian Hills. The alternatives address sensitive bat use sites in this area and could provide information and strategies that could be applicable to the entire CDCA. Establishment of a specified bat management area and collection of relevant habitat use patterns could also have ramifications upon the need for or content of future bat listing packages.

2.5.1 ALTERNATIVE 1 (NO ACTION)

Utilize existing CDCA Plan direction on 7,400 acres of public lands supporting extensive habitat for several designated sensitive bat and other species, with no additional identified management area or special management strategies. Guidelines identified in the CDCA Plan for MUC Moderate public lands and additional requirements related to renewed mining operations and mine closures, would remain in effect. All existing routes in the area are currently designated open, consistent with MUC Moderate guidelines. In the future, site-specific seasonal or permanent vehicle route closures may be pursued, when specific wildlife threats or unnecessary and undue damage to public land resources are identified. (Refer to Chapter 7, Figure 11 for a map of the Silurian Hills)

2.5.2 ALTERNATIVE 2

Create the Silurian Hills Bat Habitat Management Planning Area, comprised of 7,400 acres of public land in the Silurian Hills. Prepare a Habitat Management Plan (HMP) and change the existing Moderate MUC for public lands to Limited. Establish specific strategies designed to promote conservation of designated sensitive bats and other designated sensitive wildlife that use similar habitats. Issues and management actions to be addressed in the HMP for this area, to be prepared within three years, include:

- conserve Silurian Hills bat habitat, including both roosting and feeding sites;
- conduct additional research to map, determine life history and use patterns,
- identify threats and develop protection strategies for bats;
- inventory and monitor bat sites to track population trends;
- designate routes consistent with MUC Limited guidelines; and
- develop specific mitigation measures for active mining and reclamation strategies for inactive mines, which preserve their potential for bat use.

2.5.3 ALTERNATIVE 3 (PREFERRED)

Change the existing Moderate MUC to Limited designation for 7,400 acres of public land in the Silurian Hills region, known to support extensive habitat for several designated sensitive bat species. Route designation would occur on MUC L lands, including seasonal limitations and/or closures to sensitive bat values (e.g. active bat maternity roosts).

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SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES		
Bat Conservation in the Silurian Hills: Management Area Options (Amendment # 7)		
Alternative 1 (No Action)	Alternative 2	Alternative 3 (Preferred)
<p>Utilize existing management direction and MUC Moderate on 7,400 acres of public land in the Silurian Hills region, that is known to support extensive habitat for several designated sensitive bat species.</p> <p>Guidelines identified in the CDCA Plan for MUC Moderate public lands and additional requirements related to renewed mining operations and mine closures, would remain in effect. All existing routes in the area are currently designated open, consistent with MUC Moderate guidelines. In the future, site-specific seasonal or permanent vehicle route closures may be pursued, if specific wildlife threats or undue and unnecessary damage to public land resources are identified.</p>	<p>Create the Silurian Hills Bat Habitat Management Planning Area, comprised of 7,400 acres of public land in the Silurian Hills region. Prepare a Habitat Management Plan (HMP) and change the existing Moderate MUC for public lands to Limited.</p> <p>Establish specific strategies designed to promote conservation of designated sensitive bats and other designated sensitive wildlife that use similar habitats. Issues and management actions to be addressed in the HMP for this area, to be prepared within three years, include:</p> <ul style="list-style-type: none"> • Conservation of Silurian Hills bat habitat, including both roosting sites and feeding locations; • Additional research to map, determine life history and use patterns, identify threats and develop protection strategies for bats; • Inventories and monitoring of bat sites to track population trends; • Implementation of route designation, consistent with MUC Limited standards; and • Development of specific mitigation measures for active mining and reclamation strategies for inactive mines, which preserve their potential for bat use 	<p>Change the existing Moderate MUC to Limited designation for 7,400 acres of public land in the Silurian Hills region, known to support extensive habitat for several designated sensitive bat species. Route designation would occur on MUC L lands, including seasonal limitations and/or closures to sensitive bat values (e.g. active bat maternity roosts).</p>

2.6 CDCA PLAN MAINTENANCE ACTIONS

Several changes to the CDCA Plan (1980, as amended) are needed as a result of the passage of the California Desert Protection Act of 1994 (CDPA). National Environmental Policy Act review is not required for Congressional actions such as the CDPA (83 Stat. 852, Section 102 C and 40 CFR 1506.8). The changes to the CDCA Plan needed to conform to the CDPA are listed in Appendix M, and these changes are considered "plan maintenance" actions to provide consistency with law. These text changes will be provided as an addendum to the Record of Decision (ROD) or in subsequent documentation as provided for in the ROD.

Plan maintenance actions resulting from the CDPA fall into two groups. The first group is lands that are no longer under the jurisdiction of the BLM. 3,000,000 acres of public lands previously under the jurisdiction of the BLM were transferred to the National Park Service. All BLM land-use decisions for these lands have been revoked.

The second group is lands still under the jurisdiction of the BLM. In the NEMO Planning Area these include management areas affected by new Park boundaries, lands Congress designated as wilderness or wilderness study areas, remaining lands under wilderness review, lands released from wilderness study status, small ribbons of land (under 500 acres) released from wilderness review and the Mountain Pass/Dinosaur Trackway ACEC. These plan maintenance actions are not addressed further in this document. (See Appendix M)

2.7 CALIFORNIA DESERT PROTECTION ACT IMPLEMENTATION: MULTIPLE USE CLASS OF RELEASED WSA'S

Released wilderness study areas total approximately 475,000 acres. Most parcels in the NEMO Planning Area were released wilderness study areas (WSA) recommended as nonsuitable by the Bureau of Land Management (p. 54 of the CDCA Plan). According to the CDCA Plan, if and when released from wilderness consideration, these public lands are to be managed according to the multiple-use class (MUC) originally designated in the Plan. Approximately 460,000 acres are included in this category. (See Table 2-10).

The second category of lands includes four areas totaling approximately 8,300 acres. These four areas (two in Kingston Range, one in Slate Range, and a portion of an area adjacent to Piute Wilderness) were recommended by the BLM as suitable for wilderness to Congress, which Congress chose not to designate as wilderness and chose to release from further wilderness consideration. In this second instance, these lands were designated as MUC controlled under the CDCA Plan. The CDCA Plan (p. 55 of the CDCA Plan as amended by the 1982 Plan Amendments Record of Decision, p. 121) indicated that, if and when released from wilderness consideration, these recommended WSAs should have an interim Multiple-Use Class Limited designation, which they are

managed under pending final determination through the land use planning process. Two alternatives were considered for released lands. The first is No Action, since full consideration was given to parcels during CDCA Plan development. Under this alternative, the MUC of these lands would continue as identified during the CDCA Plan analysis prior to receiving wilderness study area status, and as they have been managed upon their release from wilderness consideration in 1994. For the four areas that were wilderness recommended lands, a continuation of MUC L management and designation as MUC L would occur.

A second alternative is considered if the MUC of the lands around a parcel has been changed by CDCA plan amendment or is proposed for change in this planning document (e.g., desert tortoise DWMA's); or if new information has been compiled, such as for threatened and endangered species, wild & scenic rivers, cultural sites eligible for the National Register, or concerning management of conflicting uses, which would lead to a different conclusion as to the appropriate MUC for a parcel. In these cases, an alternative is proposed for the MUC to be consistent with the MUC of surrounding lands or new information. Otherwise, the MUC of each parcel is already consistent with that of surrounding non-wilderness lands and existing CDCA Plan analysis.⁷

There are also remnant parcels that show up due to Congressional boundary adjustments which are relatively small or long, linear slivers of less than 500 acres each (See Table 2-8). These total less than 10,000 acres. In cases where small acreages or long slivers of public lands were released, the redesignation of each parcel is being addressed as a plan maintenance action under Section 2.6 of this Chapter. Lands would be redesignated consistent with surrounding MUC that is not wilderness.

2.7.1 ALTERNATIVE 1 (NO ACTION)

Continue to manage approximately 475,000 acres of public lands consistent with existing CDCA Plan guidance for lands released from further wilderness review by Congress. All lands that were not recommended by BLM as wilderness would return to their original MUC in the CDCA Plan, and lands recommended by BLM as wilderness would utilize MUC Limited as their final MUC designation. Under this alternative, approximately 315,950 acres would be managed under MUC L guidance and approximately 152,350 acres would be managed under MUC M guidance. Reclassification of all or part of these lands may be revisited at a future date. (Refer to Table 2-9 and 2-10 below and a map reference in Chapter 7, Figure 5a). Additional areas under 500 acres would return to their original MUC under all alternatives (see Table 2-8 for identified areas under 500 acres).

2.7.2 ALTERNATIVE 2

Designate public lands released from further wilderness review by Congress consistent

⁷ In a few cases, such as the two recommended Kingston Range parcels, surrounding MUC was mixed and there was not a route or other clear feature to use to divide the parcels. This alternative provided for MUC Moderate as an alternative for consideration to the MUC Limited of No Action.

with the CDCA Plan, surrounding lands and new information. This would result in a change in MUC in approximately half the areas, where some or all of the acreage surrounding released lands is different than that identified in the CDCA Plan, or new information has become available. Under this alternative, approximately 401,400 acres would be managed under MUC L guidance and approximately 66,900 acres would be managed under MUC M guidance. Refer to Table 2-9 and 2-10, which follows, and Chapter 7, Figure 5a. In addition, areas under 500 acres would return to their original MUC.

2.7.3 PREFERRED ALTERNATIVE

Same as Alternative 1, No Action, designate MUC based on original CDCA Plan analysis, except in the 11 locations listed in Table 2-9 that are summarized below which would be designated consistent with surrounding lands, as follows (see Chapter 7, Figure 5a for a map of this alternative). Under this alternative, approximately 392,920 acres would be managed under MUC L guidance and approximately 75,380 acres would be managed under MUC M guidance.

- Cerro Gordo (R-7 through R-9 on map). Approximately 21,244 acres in portions of three areas designated as M in 1980 CDCA Plan based on mineral values under this alternative would go to L based on scenic, cultural, and sensitive wildlife issues.
- Surprise Canyon (R-13 on map). Approximately 849 acres is in south half of this released area and was designated as M in 1980 CDCA Plan (eastern part of Middle Park Canyon) based on mineral values. Under this alternative it would go to L based on watershed values, sensitive wildlife, pinyon juniper vegetative community, and scenic values.
- Greenwater (B-1 on map). Approximately 3,000 acres designated as M along northern boundary of released lands in the 1980 CDCA Plan based on mineral values under this alternative would go to L based on raptor, bighorn sheep, Category III desert tortoise habitat, and other wildlife and plant community values.
- Eagle Mountain (B-2 on map). Approximately 15,746.04 acres designated as M in 1980 CDCA Plan based on mineral values under this alternative would go to L based on new T&E and cultural issues.
- East of China Ranch (B-10 on map). Approximately 800 of the 4,009.90 acres was designated as M in the CDCA Plan based on mineral values; under this alternative it would go to L based on watershed, riparian, sensitive species, and scenic values.
- Dumont (B-12 on map). Approximately 17,401.46 acres designated as M based on recreational and mineral values in the CDCA Plan under this alternative would go to L based on prehistoric cultural, riparian, and habitat values and to facilitate access management into the Salt Creek ACEC.

- Boulder Corridor W & E (N-4 and N-5 on the map). Approximately 1,036 acres of Boulder Corridor - West (N-4), within the western end of the Shadow Valley Desert Tortoise DWMA under this alternative would go from M to L. The other 1,554 acres would remain MUC M. Approximately 6,001 acres of Boulder Corridor - East (N-5), in Mesquite Valley at the Nevada border, under this alternative would go from L to M. The other 3,002 acres within the eastern end of the Shadow Valley Desert Tortoise DWMA would remain MUC L.
- Mesquite Springs (N-7). Approximately 18,564 acres designated as M in the CDCA Plan based on recreational and mineral values under this alternative would go to L based on cultural, riparian and scenic values.

In addition, areas under 500 acres would return to their original MUC.

Table 2-8: Released Lands: Multiple -Use Class of Released WSAs Identified Less than 500 Acres*		
Name	Adjacent MUC	MUC in CDCA
Funeral Mountains	L & Wilderness	L
Sidehill Mine	L & Wilderness	L
Baxter Mine	Wilderness	C (to L now)
Ibex	I & Wilderness	I
Saddle Peak	L & Wilderness	M
Alexander	M & Wilderness	M
Hollow Hills East	L & Wilderness	L
Gunsight	L & Wilderness	L
Alexander	M & Wilderness	M
Copper Queen	L	L
Piper Mountain	L	L
Piper Mountain	L	L
Saline	L	L
Jumbo Mine	L & Wilderness	L

*Lands under 500 acres will return to their former MUC, except MUC C will return to MUC L. Total acreage for all areas is less than 10,000 acres. This table is not all-inclusive. There are small segments and slivers of released lands that are too small to accurately measure.

Table 2-9: Released Lands: Summary of Alternatives		
Alternative	MUC M	MUC L
1 (No Action)	152,354.77	315,944
2	91,624	376,676
3 (Preferred)	66,626	394,118

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Table 2-10: Released Lands - Multiple-use Class of Released WSAs

Map Ref #	Name	Acres	Adjacent MUC	1980 CDCA MUC (No Action)	Alt 2	Preferred
R-1	Fish Lake Valley	15,260.15	L, incl. WSA	L	L	L
R-2	Wyman Creek	15,419.57	L, incl. WSA	L	L	L
R-3	Piper Mountain- North	4,201.68	L & C	L	L	L
R-4	Saline Valley*	1162.56	C & M	C (to L now)	M	L
R-5	Inyo Mountains-N*	2,975.82	C & M	L and C (to L now)	L	L
R-6	Inyo Mountains-S	678.62	M	L	M	L
R-7	Cerro Gordo Peak-N	19,046.66	M & C	M&L	M	L
R-8	Cerro Gordo Peak-E	1241.38	C & M	M	M	L
R-9	Cerro Gordo Peak-S	3526.36	M & C	M	M	L
R-10	Argus	606.18	L & C	L	L	L
R-11	Wild Rose Canyon*	9,238.35	L & C	L	L	L
R-12	Surprise*	2,177.93	L & C	L	M	L
R-13	Surprise Canyon*	3,275.64	L & M	L & M	M	L
R-14	Slate Range	53,933.31	L & C	L	L	L
R-15	Manly Peak*	18,663.85	L & C & M	L	M	L
R-16	Slate Range-SE*	4,447.58	L	C (to L now)	L	L
B-1	Greenwater*	34,719.90	M & L	L & M	L	L
B-2	Eagle Mountain	15,746.04	L , M & C	M	L	L
B-3	Stewart Valley	779.55	C & L	L	L	L
B-4	Chicago Valley	2,152.62	L & C	L	L	L
B-5	Pahrump	3,122.11	L & C	L	L	L
B-6	Resting Springs Range*	9,844.69	L & C	L	L	L
B-7	Dublin Hills*	6,581.30	M & C	M	M	M
B-8	Shoshone	9,478.94	L & C	L	L	L
B-9	Sperry Hills*	24,503.73	L , C, & M-small	L	L	L
B-10	East of China Ranch	4,009.90	M, L & C	M & L	L	L
B-11	Avawatz*	31,837.17	M & C (WSA)	M	L	M
B-12	Dumont	17,401.46	L,M, & C (WSA)	M	L	L
B-13	Silurian	20,035.89	M & C	M	L	M
B-14	Hollow Hills North	543.51	M & C	L	M	L
B-15	Baker Northwest	3,066.71	L & C(WSA)	L	L	L
B-16	Baker Northeast	8,170.97	M & C & L-v. small	M	M	M
N-1	Kingston Range-E	1,076.12	M & L	C (to L now)	M	L
N-2	Kingston Range-W	2,169.21	M & L	C (to L now)	M	L
N-3	Mesquite Mountains	1,144.09	L	L	L	L
N-4	Boulder Corridor-W***	2,590.71	M & C	L	M	M & L
N-5	Boulder Corridor-E***	9,003.74	L & C	L	L	M & L
N-6	Piute Wilderness**	5,888.65	L	C (to L now) & L	L	L
N-7	Mesquite Springs**	24,853.28	C & M & L-v. small	M	L	L
N-8	Lava Hills	34,733.12	L & M-v. small	L	L	L
N-9	South Bristol Mountains	38,906.10	L	L	L	L

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SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES		
Establish MUC for 475,000* acres of released WSA's - Multiple use Class Changes of Released Lands		
Alternative 1 (No Action)	Alternative 2	Alternative 3 (Preferred)
Continue to manage public lands under the CDCA Plan utilizing interim Multiple-Use Class Limited designations on 315,950 acres of public lands released from further wilderness review by Congress and 152,350 acres of public lands designated as Moderate. Reclassification of all or part of these lands may be revisited at a future date.	Consistent with the original CDCA Plan findings, designate 401,400 acres of public lands released from further wilderness review by Congress as Multiple-Use Class Limited and 66,900 acres of public lands as Moderate.	Designated consistent with the original CDCA Plan findings except in the following locations where MUC of lands surrounding have been redesignated and new data substantiate need. 392,920 acres of public lands released from further wilderness review by Congress as Multiple-Use Class Limited and 75,380 acres of public lands as Moderate. Locations where changes have been made: <ul style="list-style-type: none"> • Cerro Gordo (*21,244 acres) • Surprise Canyon (*849 acres) • Greenwater (3,000 acres) • Eagle Mountain (15,746 acres) • East of China Ranch (4,009 acres) • Dumont (17,401 acres) • Boulder Corridor W & E (11,593) • Mesquite Springs (18,564 acres)
MUC M - 152,350 MUC L - 315,950	MUC M - 66,900 MUC L - 401,400	MUC M - 75,380 MUC L - 392,920

* Summary Table does not include MUC breakdown for lands under 500 acres. Total acreage for these areas is less than 10,000 acres.

2.8 GREENWATER CANYON ACEC DELETION

About 73 percent of the original Greenwater Canyon ACEC was included in the expansion of Death Valley National Park and is no longer under the jurisdiction of the BLM. The remaining 820 acres of public lands are evaluated under ACEC importance and relevance criteria. (Refer to Chapter 7, Figure 12 for a map of all alternatives)

2.8.1 ALTERNATIVE 1 (NO ACTION)

The 820 acres remaining under BLM jurisdiction would continue to be managed as a cultural ACEC, under the existing ACEC management plan. Acreage, maps and text of the ACEC management plan would be amended to exclude approximately 2,160 acres of NPS managed lands from inside the ACEC boundaries, as ACEC is a Bureau of Land Management designation and management tool.

2.8.2 ALTERNATIVE 2 (preferred)

The Greenwater Canyon Cultural ACEC would be deleted, and the 820 acres remaining under BLM jurisdiction would no longer be managed as an ACEC. The 820 acres would be managed according to the underlying MUC guidelines for the area, which is MUC Limited.

SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES	
Greenwater Canyon ACEC Deletion Proposal (Amendment # 9)	
Alternative 1 (No Action)	Alternative 2 (Preferred)
The 820 acres remaining under BLM jurisdiction would continue to be managed as a cultural ACEC, under the existing ACEC management plan.	The Greenwater Canyon Cultural ACEC would be deleted and the 820 acres remaining under BLM jurisdiction would be managed according to MUC Limited guidelines.

2.9 ORGANIZED COMPETITIVE VEHICLE EVENTS

The Barstow-to-Vegas (B-to-V) Motorcycle Race Course was established by a 1982 Plan Amendment to the CDCA Plan. The B-to-V course is about 250 miles in length and crosses desert tortoise critical habitat in the West Mojave Desert, Mojave National Preserve and NEMO Planning Area, then crosses into Nevada. Within California, approximately 65 percent of the course is located in critical desert tortoise habitat.

With the creation of the Mojave National Preserve, designation of wilderness and retention of certain WSAs north of I-15, the West-East alignment of the Barstow-to-Vegas course was effectively severed and potential realignment is severely limited. The original course is no longer intact, with 23.4 miles now in the Mojave National Preserve. Alternatives are presented that include no change, deletion of the B-to-V course and all point-to-point competitive speed events outside of OHV open areas and rerouting of the B-to-V course.

Alternatives include no action, deletion, defining an alternate route or setting route criteria for proponents to use for assembling an event proposal. Two of these strategies (a set course and criteria) are not necessarily exclusive of one another. Some of these alternatives may provide for racing opportunities in addition to the Barstow-to-Vegas annual event. Similar amendments are currently being considered in adjacent planning areas to the west (West Mojave) and south (Northern and Eastern Colorado). Criteria were derived from the work of the 1994 Technical Review Team appointed by the Desert Advisory Council to review competitive event issues and develop options to address them.

2.9.1 ALTERNATIVE 1 (NO ACTION)

The B-to-V Race Course would remain as delineated on the California Desert Conservation Area Plan Land Use Map⁸ and subject to the provisions/stipulations of the CDCA Plan (Refer to Chapter 7, Figure 14 for a map of all alternatives).

This alternative would allow for other point-to-point motorized vehicle events outside of OHV open areas in accordance with the Organized Competitive Vehicle Events section of the Recreation Element of the California Desert Conservation Area Plan as amended.

The CDCA Plan identifies criteria for events that traverse through MUC L lands: "Organized competitive events will be allowed in Multiple-Use Class M and I areas and may be permitted to cross some Multiple-Use Class L areas on "approved vehicle routes of travel" (see Motorized Vehicle Access Element and Part 6, Appendix V to the proposed plan, October 1980)". Because of potentially sensitive resources in Multiple-Use Class L areas, race routes through these areas must comply with the following additional requirements.

⁸ This alignment is no longer feasible due to the listing of the desert tortoise and establishment of the Mojave National Preserve. These changes in circumstances have made it impossible for the BLM to issue a permit for the race reasonably following the course shown on the California Desert Conservation Area Plan Land-Use Map as amended in 1982. See Findings of Fact and Conclusions of Law June 8, 1990 (U.S. District Court) (SA CV 90-267-JSL)

- (1) All courses will remain on routes of travel that have been "approved" for motorized-vehicle use in MUC L.
- (2) Pit and spectator areas will not be allowed.
- (3) Fragile and/or significant areas will be avoided.
- (4) The BLM will require the event sponsors to mitigate potential negative impacts and may require rehabilitation where feasible.
- (5) All racecourses are temporary and may not be used on a continual basis pending specific resource studies. (See Appendix V to the proposed Plan, October 1980, for further clarification.)
- (6) Long-term adverse impacts will not be allowed.
- (7) Event participants may have to traverse MUC L lands under controled (yellow flag) conditions (e.g., no passing, timed speeds, maintained roads) as appropriate for resource protection and public safety.
- (8) Length (mileage) of the event passing through MUC L will be a key factor in determining use.
- (9) Width of the course will be the minimum practicable for resource protection and public safety.
- (10) All other alternative routes have been considered.
- (11) All the above criteria in addition to those required by 43 CFR 8372 and BLM Manual 6260.

Until such time as "approved routes of travel" can be identified in MUC L, the passage of vehicles under permit for a competitive event will be confined to paved or maintained roads. For purposes of the Plan "maintained roads" will be defined as "regularly or frequently maintained by continuos use (e.g., passage of vehicles) or machine maintenance." Final determination of regular or frequent maintenance will be by the California Desert District Manager.

All proposals would be subject to site specific evaluation. Conference and consultation with State and Federal wildlife agencies would occur if the proposal might affect listed species.

2.9.2 ALTERNATIVE 2

Amend the California Desert Conservation Area Plan to:

- a) Remove delineation of the Barstow-to-Las Vegas Race Course from the Land Use Map of the California Desert Conservation Area Plan, (1980 as amended).
- b) Replace the text in the section titled Organized Competitive Vehicle Events under the Recreation Element of the CDCA Plan with: Competitive vehicle events may only be held in MUC I. with an area designation of "Open".
- c) Amend the MUC Guidelines to delete all reference to organized competitive vehicle events in MUC L and M, under recreation.

2.9.3 ALTERNATIVE 3

Amend the California Desert Conservation Area Plan to provide for OHV competitive events in the following manner:

- a) Replace the MUC Guidelines and the Recreation Element of the CDCA Plan to include the following criteria for point-to-point motorized vehicle events on all lands outside of Open Areas regardless of the MUC:
 - 1) Events shall be limited to routes designated as open. The race course shall be limited to existing route width.
 - 2) Start areas shall be located on MUC I lands designated as OHV open areas. Finish and spectator areas shall be limited to suitable sites in classes M or I. All pit areas shall be limited to support crews.
 - 3) The event shall not be permitted in wilderness areas, WSAs, ACECs; critical habitat, identified cultural resource sites or districts, riparian areas, and other sensitive areas. The event shall not be permitted on historic trails and roads that are on or eligible for the National Register of Historic Places, designated National Historic Trails or other specially designated trails or routes.
 - 4) Written permission from property owners to cross private property shall be provided to the BLM.
 - 5) Permit stipulations shall be prepared for each event and shall address monitoring activities, reclamation plans, insurance, enforcement, penalties, race course alignment and markings, number of participants (not to exceed 500) and other standard permit requirements.
 - 6) The race shall be managed under timed-start conditions (maximum 100 vehicles per wave), and participation shall be limited to motorcycles and ATVs.
- b) Remove delineation of the B-to-V Race Course from the Land Use Map of the CDCA Plan, (1980 as amended).
- c) Delete the following text from the section titled Organized Competitive Vehicle Events under the Recreation Element of the Plan: ...and one motorcycle race course. (The Barstow-to-Vegas Motorcycle Race Course is established running from Alvord Road to Stateline. See Supplemental information.)

2.9.4 ALTERNATIVE 4

This alternative would designate a replacement Barstow-to-Vegas Race Course to allow one event per year that would avoid critical desert tortoise habitat, ACECs, wilderness areas and other sensitive resources consistent with criteria identified in Alternative 3. The alternative alignment (Chapter 7, Figure 14) evaluated follows the Kingston Wash wilderness corridor north of the current alignment. A number of other alignments were considered and dismissed from further consideration because they crossed wilderness or other sensitive areas such as ACECs or critical habitat for listed species.

The additional criteria for point-to-point events outside of open areas would be the same as Alternative 3 except that:

- (1) Where there is no evidence of sensitive resources, the course may be expanded to as much as 100 feet, in specified areas as identified in the permit, at the discretion of the Authorized Officer.
- (2) This alternative would also allow the course to pass through an ACEC on a designated open route provided that the ACEC Management Plan clearly states that the route may be utilized for the named event and all other conditions identified in the ACEC Plan are met.

2.9.5 ALTERNATIVE 5 (preferred)

Amend the California Desert Conservation Area Plan to:

- a) Remove delineation of the Barstow-to-Las Vegas Race Course from the Land Use Map of the California Desert Conservation Area Plan, (1980 as amended).
- b) Replace the text in the section titled Organized Competitive Vehicle Events under the Recreation Element of the CDCA Plan with: Competitive vehicle events may only be held in MUC I with an area designation of "Open" or on specified recreation routes which have been delineated and designated in the CDCA Plan.
- c) Amend the MUC Guidelines to delete all reference to organized competitive vehicle events in MUC L and M, under recreation.

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Organized Competitive Vehicle Events				
Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
<p>The B-to-V Race Course would remain as delineated on the California Desert Conservation Area Plan Land Use Map.</p> <p>This alternative would permit motorized vehicle events outside of open areas in accordance with provisions of the CDCA Plan, as amended. These activities are permitted in MUC Intensive and Moderate areas. Criteria have been identified in the Recreation Element of the CDCA Plan to govern crossing of MUC L lands.</p>	<p>Remove delineation of the Barstow-to-Vegas race course from the Land Use Map of the 1980. California Desert Conservation Area Plan, as amended</p> <p>Amend the Multiple-use Class Guideline to restrict Competitive Vehicle Events to MUC I with an area designation of "Open". (OHV Open Areas)</p>	<p>Replace the MUC Guidelines and the Recreation Element of the CDCA Plan with the following criteria for point-to-point motorized vehicle events on all lands outside of Open Areas:</p> <ul style="list-style-type: none"> Events shall be limited to routes designated as open. The race course shall be limited to existing route width. Start areas shall be located in MUC I. Finish and spectator areas shall be limited to suitable sites in classes M or I. All pit areas shall be limited to support crews. The event shall not be permitted in wilderness areas, WSAs, ACECs; critical habitat, identified cultural resource sites or districts, riparian areas, and other sensitive areas. The event shall not be permitted on historic trails and roads that are on or eligible for the National Register of Historic Places, designated National Historic Trails or other specially designated trails or routes. Written permission from property owners to cross private property shall be provided to the BLM. Permit stipulations shall be prepared for each event and shall address monitoring activities, reclamation plans, insurance, enforcement, penalties, race course alignment and markings, number of participants (not to exceed 500) and other standard permit requirements. The race shall be managed under timed-start conditions (maximum 100 vehicles per wave), and participation shall be limited to motorcycles and ATVs. <p>Remove delineation of the Barstow-to-Vegas race course from the Land Use Map of the 1980 California Desert Conservation Area Plan, as amended</p> <p>Amend the California Desert Conservation Area Plan to: Delete the following text from the section titled Organized Competitive Vehicle Events under the Recreation Element of the Plan: <u>...and one motorcycle race course. (The Barstow-to-Vegas Motorcycle Race Course is established running from Alvord Road to Stateline. See Supplemental information.)</u></p>	<p>Realign the Barstow-to-Vegas race course through the Kingston Wash corridor through wilderness area 36, to avoid the Mojave National Preserve, critical desert tortoise habitat, ACEC's, wilderness areas and other sensitive resource areas. Passage through Multiple-use Class Limited would be under conditions established in the Recreation Element of the CDCA Plan, and the annual event would be limited to timed-starts.</p> <p>The additional criteria for point-to-point events outside of open areas would be the same as Alternative 2 except that:</p> <ul style="list-style-type: none"> Where there is no evidence of sensitive resources, the course may be expanded to as much as 100 feet, in specified areas as identified in the permit, at the discretion of the Authorized Officer. Any other events would have the same limits as Alternative 2. This alternative would also allow the course to pass through an ACEC on a designated open route <u>provided that</u> the ACEC Management Plan clearly states that the route may be utilized for the named event and all other conditions identified in the ACEC Plan are met. 	<p>Amend the California Desert Conservation Area Plan to:</p> <p>a) Remove delineation of the Barstow-to-Las Vegas Race Course from the Land Use Map of the California Desert Conservation Area Plan, (1980 as amended).</p> <p>b) Replace the text in the section titled Organized Competitive Vehicle Events under the Recreation Element of the CDCA Plan with: <u>Competitive vehicle events may only be held in MUC I with an area designation of "Open" or on specified recreation routes which have been delineated and designated in the CDCA Plan.</u></p> <p>c) Amend the MUC Guidelines to delete all reference to organized competitive vehicle events in MUC L and M, under recreation.</p>

2.10 MOTOR VEHICLE ACCESS: ROUTES OF TRAVEL DESIGNATION

Definition of Terms

The CDCA Plan, as amended in 1982, defined route designations as follows:

- **Open Route** – Access on the route by motorized vehicles is allowed.
- **Limited Route** – Access on the route is limited to use by motorized vehicles in one or more of the following ways and limited with respect to:
 1. Number of vehicles allowed;
 2. Types of vehicles allowed;
 3. Time or season of vehicle use;
 4. Permitted or licensed vehicle use only;
 5. Establishment of Speed Limits.

The same exceptions to motorized vehicle use of closed routes also apply to limited routes (see below).

- **Closed Route** – Access on the route by motorized vehicles is prohibited except: (1) fire, military, emergency, or law enforcement vehicles when used for emergency purposes; (2) combat or combat support vehicles when used for national defense purposes; (3) vehicles whose use is expressly authorized by an agency head under a permit, lease, or contract; and (4) vehicles used for official purposes by employees, agents, or designated representatives of the Federal Government or one of its contractors.

In addition to 43 CFR criteria, the following are factors in route designation:

- **Redundant route** - A redundant route is one whose purpose is seemingly identical to that of another route, inclusive of providing the same or very similar recreation opportunities or experiences; and upon designating such a route as "closed," the use thereby redirected to another route or routes would be in accordance with the route designation criteria in 43 CFR 8342.1.
- **Problem route** - A route that once furnished access to a point that now occurs in wilderness (a) could provide access to the boundary of that wilderness area, or (b) has become a management "problem" as motorized access into wilderness has continued and no purpose would be served in establishing a trail head at that point. Existing access to cultural or other sensitive resources may have resulted in degradation of the resources.
- **Non-existent route** - Non-existent routes are defined in the context of the NEMO Plan as routes that are no longer used and have been substantially reclaimed by the forces of nature. Some routes that are delineated on the 1979 CDCA "existing" route inventories and/or the most recent versions of 7.5-minute USGS maps cannot be located due to complete or near-complete natural reclamation.

- **Partially non-existent routes** – Partially non-existent routes are (1) intermittently visible, encouraging cross-country travel at locations where surface evidence of the route disappears and/or (2) although still visible, travel upon them would require the crushing of substantial vegetation due to the degree of reclamation that has already occurred.
- **Maintained road** - The CDCA Plan, as amended, defines a maintained road as “regularly or frequently maintained by continuous use (e.g., passage of vehicles) or machine maintenance.” For determining which routes the BLM will designate in the NEMO Plan, a maintained dirt road is generally one that is maintained periodically with the use of machines (e.g., motorized graders), which is a standard that can be more uniformly applied.
- **Casual use** - Casual use of public lands in the context of motorized-vehicle access is defined as the use of routes not requiring a specific authorization.
- **Authorized use** - Authorized use in such context is the use of routes approved through a permitting process for specific activities (e.g., rights-of-way issued for development of communication sites).

General Scope of Route Designation

Some roads and routes crossing public lands are considered to be part of the primary transportation system of the planning area and will not be addressed in the route designation process. This includes Federal, State, and County paved and maintained roads and major linear rights-of-way or similar authorizations. These roads and routes will be shown on the route designation maps to give an overall view of the transportation network. In addition, route designations apply only to routes and portions thereof on BLM-managed public lands; the designation of routes as “open,” “limited,” and “closed” is not applicable on nonpublic lands. Access for the use and enjoyment of private lands will be addressed on a case-by-case basis where private landowners may be adversely affected by route designation decisions.

Washes as motorized-vehicle routes of travel are addressed in the same manner as non-wash routes, that is, they are individually mapped and either designated “open,” “limited,” or “closed”. The designation of routes as “open,” “limited,” and “closed” is also generally applicable to both casual and authorized users of public lands. However, where there is a requirement for occasional access associated with an authorized use but it is determined that unlimited casual use may cause undesirable resource impacts, routes will be designated “closed” and available for use only by the authorized party. In such circumstances, the authorized use of a “closed” route usually limits this use in some manner or requires mitigation in some form. It is anticipated that BLM will make few “closed” routes available for use by authorized parties, except those within wilderness for which use is strictly defined in the California Desert Protection Act (1994).

Inventory

According to the 1982 CDCA Plan amendment of the Motorized-Vehicle Access Element, an existing route of travel is a route established before approval of the CDCA Plan in 1980 with a minimum width of two feet, and showing significant surface

evidence of prior vehicle use or, for washes, having a history of prior use. Baseline inventory was taken from ICMP “existing” route inventory maps (compiled from 1975 aerial photos, 15-minute USGS maps from 1955-1956 as edited in 1979, with other State and Federal agency maps to provide land status and other sources). These are the inventory maps that were utilized to produce the Desert Access Guides, which include some, but not all, of the routes from these maps.

There were concerns in the initial route designation process that few routes were identified for closure or limitations, that steps needed to be taken to document and prevent route proliferation, and that additional existing ways and trails needed to be identified and mapped.

In the NEMO effort, the inventory from 1979 was supplemented with updated USGS topographical maps, route location field data that was collected beginning in 1993 with a full-time volunteer along with Needles Field Office staff, and supplemental public input from 1998-1999. NEMO route designation scoping meetings and follow-up field visits with staff of the field office to Piute-Fenner DWMA were held during 1998, and private landowners, user and interest groups were given the opportunity to review and comment on early route recommendations and provide additional input. The overall objective of this effort was to drive all routes within the planning area and record their locations. Routes not on the 1979 inventory of “existing” routes may be considered for addition to the inventory, consistent with MUC and CDCA Plan guidance.

To date, “existing” routes in all Category I, II and critical desert tortoise habitat have been field checked and mapped for the NEMO Plan. This covers approximately 350,000 acres of land in the southern 30 percent of the planning area that is not designated as wilderness or wilderness study area. In addition, routes have been previously inventoried, field checked, mapped and analyzed in a few of the larger ACECs, such as the Amargosa and Grimshaw Lake Natural Area ACECs, and the nearby Salt Creek ACEC, in conjunction with ACEC management planning from the early 1980’s.

Route Designation Criteria

Five criteria are identified in 43 CFR 8342.2 to consider when making area and route-specific designation decisions, including:

1. Minimize damage to soil, watershed, vegetation, air, or other resources, and prevention of impairment of wilderness suitability.
2. Minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
3. Minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
4. No trails will be located in designated wilderness or primitive areas.

5. Routes designated in natural areas must not adversely affect natural, esthetic, scenic, or other values for which the areas were established.

Applying “location-specific” criteria occasionally leads to the designation of an entire route as “closed” rather than limiting the closure to a portion of the route. Such broadening of the parameters in this manner is generally based on judgments regarding potential for manageability. Conversely, in light of judgments regarding maintenance of a viable route network and, again, potential for manageability, routes occurring within the prescribed distance as specified by the natural resource parameters (five criteria above) are occasionally designated “open” or “limited.”

Scope of Route Designation in the NEMO Planning Area

Route designations are not appropriate in Congressionally-designated wilderness areas, nor in wilderness study areas where Congress has not yet determined whether lands should be designated as wilderness or should be released. For the remainder of public land routes, “open”, “limited”, and “closed” route designations may be made in each of the Multiple-Use Classes, including Areas of Critical Environmental Concern (ACECs), and in unclassified lands. This covers approximately 1.2 million acres in the NEMO Planning Area.

Approximately 30 percent of the 1.2 million acres where route designation is needed will be designated in this planning effort. BLM will make the designation of the remaining route network a priority in areas where protection and recovery of T&E species is the goal, through supplemental route designation or new efforts in conjunction with follow-up surveys and ACEC planning. These areas are currently or are proposed as MUC “L” and ACECs in the NEMO planning effort.

General priorities for completion and implementation of route designation in the remainder of the planning area are:

- (1st) areas which are identified for the protection and enhancement of T&E and sensitive species, areas which have high sensitivity for cultural resources, and designated special areas (e.g., ACECs);
- (2nd) areas which may affect access to wilderness;
- (3rd) areas which are identified for the protection and enhancement of watershed or public land health values,
- (4th) MUC “L” or “T” areas,
- (5th) MUC “M” areas,
- (6th) other public lands.

Secondly, the BLM, California Desert District has evaluated the route designation process, and developed a proposal to simplify it. This proposal eliminates the “existing” route network approach that is currently used in some MUC within the CDCA, which are based on a database that is twenty-two years old where that database exists, and replaces it with the same route network process used within MUC “L” for route designation. With a consistent and simple approach to route designation, the designation of routes in MUC

“M” and “I” outside of OHV open areas can proceed efficiently based on established priorities. These route network and route-specific designations will be pursued by each field office through the land-use planning process as site-specific analyses are completed and public input provided, consistent with the CDCA Plan, as amended.

Route Specific NEPA Documentation

The EIS prepared for the NEMO Plan constitutes NEPA documentation for designating routes of travel. Detailed maps at the 1:24,000 scale depicting routes and their proposed designations are available for review at the appropriate local offices (Needles, Ridgecrest, and Barstow) Field Offices, and the California Desert District Office in Riverside.

Implementation of Route Designation Decisions

- Routes comprising a basic recreational access network within the NEMO planning area would be individually signed in such a way as to best signify their availability for use. This basic network is based on specific recreational touring routes for the NEMO planning area, as they are designated. Signing strategies may vary to reflect site-specific needs, particularly in special management areas such as DWMAs.
- Information kiosks depicting the basic recreational access network would be installed at key locations throughout the NEMO planning area. These kiosks would furnish information relating to access opportunities and limitations, resource protection, and visitor safety.
- Printed media (e.g., maps, brochures, etc.) depicting the basic recreational access network would be developed and distributed to the public. Information provided would be similar to that on the kiosks, but would likely be more comprehensive as space allows.
- Routes designated “closed” would be appropriately signed, barricaded, or rehabilitated as necessary to exclude access and allow the forces of nature to obliterate them, except where limited use is important to achieve resource management objectives (e.g., maintenance of small game guzzlers to support wildlife populations). In such cases, access would be controlled to exclude casual use by the general public yet allow continued administrative use.
- Decision to sign routes that are not included in the basic recreational access network but that are available for motorized-vehicle use (i.e., they have not been designated “closed”) would be based on need to minimize resource conflicts. They would not be depicted on informational kiosks.

The intent of this strategy is (1) to provide off-highway vehicle recreationists, especially novices, with well-defined, signed routes on which to explore the desert, and (2) to direct use to a limited number of primary routes, thereby decreasing use throughout the network of secondary routes. In general, it is anticipated that the identified primary routes will better accommodate higher levels of use with lower potential for adverse impacts to resource values than the secondary routes.

2.10.1 ALTERNATIVE 1 (NO ACTION)

Designate routes in accordance with criteria in 43 CFR 8342.1.⁹ Route designation would remain subject to the existing provisions/stipulations of the CDCA Plan. This includes different MUC Guidelines for selection of specific routes to be included in an approved routes of travel network. (See page 77 of the CDCA Plan, as amended March 1999 for MUC I, M, L and C guidelines). Desert washes, as motorized-vehicle routes of travel, are addressed in the same manner as non-wash routes; that is, they are individually mapped and, depending upon the Multiple-Use Class in which they occur, navigable washes are designated under “existing” or “approved” guidelines identified in the Plan, as either “open”, “closed” or “limited”.

- Designate “existing” routes under appropriate guidelines in MUC L and M areas, including navigable washes, that have been individually identified (1979 maps¹⁰) “open” for motor-vehicle use except where such use has already been limited or prohibited through publication of a final notice in the *Federal Register*.
- Three routes totalling 11 miles in length closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as “closed” for motor-vehicle use.
- Two routes totalling 6.0 miles in length that were closed through Federal Register Notice in FY 87 to protect Amargosa niterwort populations would be designated as “closed” for motor-vehicle use (Barstow Resource Area, 1987 Route Designation Maps – Map C, Route(s) C-1 and C-2) used for preparation of Desert Access Guides. These maps are available for review at the Barstow Field Office.

The following are not included as routes of travel and would be designated as “closed”:

- Routes that are non-existent or partially non-existent as verified by field review during this planning effort, although they appeared on the 1979 inventory maps utilized to prepare the Desert Access Guides, or were found on current USGS topographical maps of the area. Where a portion of the route connects to other routes that is not declared to be a non-existent route, only the non-existent route portion would be closed under this alternative.
- Routes that are within designated wilderness areas.

2.10.2 ALTERNATIVE 2

Designate routes in accordance with criteria in 43 CFR 8342.1. Route designation would remain subject to the provisions/stipulations of the CDCA Plan as amended below. Desert washes, as motorized-vehicle routes of travel, are addressed in the same manner as non-wash routes; that is, they are individually mapped and, depending upon the multiple-use class in which they occur, navigable washes are designated under “existing” or “approved” guidelines identified in the Plan, as either “open”, “closed” or “limited”.

⁹ Route designations approved through the NEMO Plan constitute CDCA Plan decisions.

¹⁰ These maps are on file in the Field Offices. The original maps are very fragile.

- Amend the CDCA Plan Motorized-Vehicle Access Element to designate and manage routes of travel in accordance with MUC Limited guidelines irrespective of Multiple-Use Class, except in MUC "C" (Wilderness) and in areas designated "Open" for vehicle use.
- Designate "existing" routes, including navigable washes, that have been individually identified (per 1979 maps) "open" for motor-vehicle use with the following exceptions:
 - Where such use has already been limited or prohibited through publication of a final notice in the *Federal Register*, including:
 - * Two routes (6 miles) that were closed through Federal Register Notice in Fiscal Year 87 to protect Amargosa niterwort populations, which would be designated as "closed" for motor-vehicle use.
 - Where conflicts with other uses have resulted in recommendation for closure or limitation under 43 CFR 8342.1 criteria, including but not limited to:
 - * Close or seasonally limit any route within 1/4 mile of any significant bat roost.
 - * Close any route within 1/4 mile of prairie falcon and golden eagle aeries (cliff nests).
 - * Close any route within 1/4 mile of a site of known occurrence of current or future listed T&E plant populations.
 - * Close any route within 1/4 mile of a natural or artificial water source (e.g., springs, seeps, streams, guzzlers).
 - * Close or seasonally limit washes, including navigable washes that do not contribute to the primary transportation network.
 - * Close any route within 1/4 mile of a significant sacred site or cultural resource that may be impacted or lost.
 - * Close, seasonally limit, or upgrade routes with significant erosion and degradation potential.
 - * Develop criteria for each special area to protect sensitive resources therein.
 - Redundant routes (see definition of terms at the beginning of section 2.10).
- In addition, non-existent and wilderness routes not included and designated as "closed" would be the same as Alternative 1 (No Action)
- In addition to the above general exceptions, in the Desert Tortoise DWMA's, routes would be designated "open" for motor-vehicle use with the following additional exceptions:
 - Three routes (11 miles) that were closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as "closed" for motor-vehicle use.
 - Routes where specific biological parameters proposed under this alternative are applied to meet desert tortoise DWMA goals and objectives (see appendix A), shall be designated "closed" or "limited" as appropriate.
 - Under this alternative, all wash routes that are not part of the primary transportation network would be designated closed in desert tortoise DWMA's.

2.10.3 ALTERNATIVE 3

Designate routes in accordance with criteria in 43 CFR 8342.1.

- Amend the CDCA Plan Motorized-Vehicle Access Element to designate and manage routes of travel in accordance with MUC Limited guidelines irrespective of Multiple-Use Class, except in MUC "C" (Wilderness) and in areas designated "Open" for vehicle use.
- Designate "existing" routes, including navigable washes, that have been individually identified (1979 maps) "open" for motor-vehicle use with the same exceptions as Alternative 2, with the following modification: Evaluate existing washes as potential routes, including navigable washes, on a case-by-case basis, based on their contribution to the primary transportation network and providing access to specific recreational destinations, consistent with criteria, rather than closing or seasonally limiting washes that do not contribute to the primary transportation network.
- In addition, non-existent and wilderness routes not included and designated as "closed" would be the same as Alternative 1 (No Action).
- In addition to the general exceptions, in the Desert Tortoise DWMA, routes would be designated "open" for motor-vehicle use with the following additional exceptions:
 - Three routes (11 miles) that were closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as "closed" for motor-vehicle use.
 - Routes where specific biological parameters proposed under this alternative are applied to meet desert tortoise DWMA goals and objectives (see appendix A), shall be designated "closed" or "limited" as appropriate.

2.10.4 ALTERNATIVE 4

Designate routes in accordance with criteria in 43 CFR 8342.1.

- Amend the CDCA Plan Motorized-Vehicle Access Element to designate and manage routes of travel in accordance with MUC Limited guidelines irrespective of Multiple-Use Class, except in MUC "C" (Wilderness) and in areas designated "Open" for vehicle use.
- Designate "existing" routes, including navigable washes, that have been individually identified (see 1979 maps) "open" for motor-vehicle use, the same as Alternative 2, with the following exceptions:
 - Address existing washes, including navigable washes, on a case-by-case basis and evaluate them based on the primary transportation network and access to specific recreational destinations, consistent with criteria (same as Alt 3).
 - Routes would not be considered for "closure" based on being defined as redundant routes in MUC "Moderate" or "Intensive"
- In addition to the above general exceptions, in the Desert Tortoise DWMA, routes will be designated "open" for motor-vehicle use with the following additional

exceptions:

- Three routes (11 miles) that were closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as “closed” for motor-vehicle use.
- Routes where specific biological parameters proposed under this alternative are applied to meet desert tortoise DWMA goals and objectives (see appendix A), shall be designated “closed” or “limited” as appropriate.

2.10.5 ALTERNATIVE 5 (Preferred)

This alternative is the same as Alternative 3.

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Motorized Vehicle Access: Routes of Travel Designation				
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
<p>Designate routes in accordance with criteria in 43 CFR 8342.1.¹¹ Route designation would remain subject to the provisions/stipulations of the CDCA Plan. Desert washes, as motorized-vehicle routes of travel, are addressed in the same manner as non-wash routes; that is, they are individually mapped and, depending upon the multiple-use class in which they occur, navigable washes are designated under “existing” or “approved” guidelines identified in the Plan, as either “open”, “closed” or “limited”.</p> <ul style="list-style-type: none"> Under No Action, all “existing” routes in MUC “L” and “M” areas, including navigable washes, that have been individually identified (1979 maps¹²), would be designated “open” for motor-vehicle use except where such use has already been limited or prohibited through publication of a final notice in the <i>Federal Register</i>. Three routes that were closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as “closed” for motor-vehicle use. <p>Not included as routes are the following, which would be designated as “closed”:</p>	<p>Designate routes in accordance with criteria in 43 CFR 8342.1. Route designation would remain subject to the provisions/stipulations of the CDCA Plan as amended below. Desert washes, as motorized-vehicle routes of travel, are addressed in the same manner as non-wash routes; that is, they are individually mapped and, depending upon the multiple-use class in which they occur, navigable washes are designated under “existing” or “approved” guidelines identified in the Plan, as either “open”, “closed” or “limited”.</p> <ul style="list-style-type: none"> Amend the CDCA Plan Motorized-Vehicle Access Element to designate and manage routes of travel in accordance with MUC Limited guidelines irrespective of Multiple-Use Class, except in MUC “C” (Wilderness) and in areas designated “Open” for vehicle use. Designate “existing” routes, including navigable washes, that have been individually identified (1979 maps) “open” for motor-vehicle use with the following exceptions: <ul style="list-style-type: none"> Where such use has already been limited or prohibited through publication of a final notice in the <i>Federal Register</i>. Where conflicts with other uses have resulted in recommendation for closure or limitation under 43 CFR 8342.1 criteria, including but not limited to: <ul style="list-style-type: none"> *Close or seasonally limit any route within 1/4 mile of any significant bat roost. * Close any route within 1/4 mile of prairie falcon and golden eagle eyries (cliff nests). *Close any route within 1/4 mile of a site of known occurrence of current or future listed T&E plant populations. *Close any route within 1/4 mile of a natural or artificial water source (e.g., springs, seeps, streams, guzzlers). * Close or seasonally limit washes, including navigable washes that do not contribute to the primary transportation network. *Close any route within 1/4 mile of a significant sacred site or cultural resource that may be impacted or lost. *Close, seasonally limit, or upgrade routes with significant erosion and degradation potential. * Develop criteria for each special area to protect sensitive resources therein. <p>-Redundant routes (see definition of terms at the beginning of section</p> 	<p>Designate routes in accordance with criteria in 43 CFR 8342.1.</p> <ul style="list-style-type: none"> Amend the CDCA Plan Motorized-Vehicle Access Element to designate and manage routes of travel in accordance with MUC Limited guidelines irrespective of Multiple-Use Class, except in MUC “C” (Wilderness) and in areas designated “Open” for vehicle use. Designate “existing” routes, including navigable washes, that have been individually identified (1979 maps) “open” for motor-vehicle use with the same exceptions as Alternative 2, with the following exception: <ul style="list-style-type: none"> Evaluate existing washes as potential routes, including navigable washes, on a case-by-case basis, based on their contribution to the primary transportation network and providing access to specific recreational destinations, consistent with criteria. In addition to the above general exceptions, in the Desert Tortoise DWMA, routes would be designated “open” for motor-vehicle use with the following additional exceptions: <ul style="list-style-type: none"> Three routes that were 	<p>Designate routes in accordance with criteria in 43 CFR 8342.1.</p> <ul style="list-style-type: none"> Amend the CDCA Plan Motorized-Vehicle Access Element to designate and manage routes of travel in accordance with MUC Limited guidelines irrespective of Multiple-Use Class, except in MUC “C” (Wilderness) and in areas designated “Open” for vehicle use. Designate “existing” routes, including navigable washes, that have been individually identified (1979 maps) “open” for motor-vehicle use with the same exceptions as Alternative 2, with the following exceptions: <ul style="list-style-type: none"> Address existing washes, including navigable washes, on a case-by-case basis and evaluate them based on the primary transportation network and access to specific recreational destinations, consistent with criteria. Routes would not be considered for “closure” based on being defined as redundant routes in MUC “Moderate” or “Intensive”. In addition to the above general exceptions, in the Desert Tortoise DWMA, 	<p>Same as Alternative 3.</p>

¹¹ Route designations approved through the NEMO Plan constitute CDCA Plan decisions.

¹² These maps are on file in the Field Offices. The original maps are very fragile.

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SUMMARY COMPARISON OF CANDIDATE AMENDMENTS AND ALTERNATIVES				
Motorized Vehicle Access: Routes of Travel Designation				
Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
<ul style="list-style-type: none"> Routes that are non-existent or partially non-existent as verified by field review during this planning effort, although they appeared on the 1979 inventory maps utilized to prepare the Desert Access Guides, or were found on current USGS topographical maps of the area. Where a portion of the route connects to other routes that is not declared to be a non-existent route, only the non-existent route portion would be closed under this alternative. Routes that are within designated wilderness areas. 	<p>2.10).</p> <ul style="list-style-type: none"> In addition to the above general exceptions, in the Desert Tortoise DWMA, routes would be designated “open” for motor-vehicle use with the following additional exceptions: <ul style="list-style-type: none"> Three routes that were closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as “closed” for motor-vehicle use. Routes where specific biological parameters proposed under this alternative are applied to meet desert tortoise DWMA goals and objectives (see appendix A), shall be designated “closed” or “limited” as appropriate. Under this alternative, all wash routes that are not part of the primary transportation network would be designated closed in desert tortoise DWMA. In addition, non-existent and wilderness routes not included and designated as “closed” would be the same as Alternative 1 (No Action) 	<p>closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as “closed” for motor-vehicle use.</p> <ul style="list-style-type: none"> Routes where specific biological parameters proposed under this alternative are applied to meet desert tortoise DWMA goals and objectives (see appendix A), shall be designated “closed” or “limited” as appropriate. In addition, non-existent and wilderness routes not included and designated as “closed” would be the same as Alternative 1 (No Action) 	<p>routes would be designated “open” for motor-vehicle use with the following additional exceptions:</p> <ul style="list-style-type: none"> Three routes that were closed through the initial route designation process in 1979, two in Shadow Valley and one in Northern Ivanpah, would be designated as “closed” for motor-vehicle use. Routes where specific biological parameters proposed under this alternative are applied to meet desert tortoise DWMA goals and objectives (see appendix A), shall be designated “closed” or “limited” as appropriate. 	

2.11 LANDFILLS

The alternatives identified in this planning effort provide strategies to implement the BLM's policies on elimination of solid waste landfills. Under current policy, BLM may allow existing solid waste landfills in the Planning Area to operate so long as adequate progress towards closure or patent of the facilities is being made. Closure of existing landfills under State supervision is a process that can take decades and involves development and implementation of a monitoring and formal closure program.

The range of alternatives includes patenting of the existing landfill sites in the NEMO Planning Area to the County of Inyo. Closure of the facilities was considered and dismissed as not providing substantially fewer environmental impacts to the public lands, which have already been utilized for solid waste disposal and have already incurred impacts from that disposal. Closure would result in higher costs to the County over a shorter timeframe and may not meet short-term solid waste disposal needs of area residents.

2.11.1 ALTERNATIVE 1 (NO ACTION)

Continue to manage 29.4 acres of public lands, which includes the former and current Tecopa community landfill, and 50 acres of public lands, which includes the former and current Shoshone community landfill, using the existing MUC Limited guidelines. Close facilities and retain Federal ownership. Begin the formal closure process on Tecopa and Shoshone community landfills under the State of California guidance.

2.11.2 ALTERNATIVE 2 (PREFERRED)

Redesignate Tecopa and Shoshone community landfill sites from MUC Limited to Unclassified to facilitate conveyance out of Federal ownership to the County of Inyo.

Tecopa Landfill MUC Change L to U for 29.4 acres		
Alternative 1 (No Action)	Alternative 2	Preferred
Continue to manage 29.4 acres of public lands, which includes the former and current Tecopa community landfill, using the existing MUC Limited guidelines. Close facilities and retain Federal ownership.	On 29.4 acres encumbered by the former and current Tecopa community landfill site, public lands would be redesignated from MUC Limited to Unclassified to facilitate conveyance out of Federal ownership to the County of Inyo.	Alternative 2.
Shoshone Landfill Change MUC L to U for 50 acres		
Continue to manage 50 acres of public lands, which includes the former and current Shoshone community landfill, using the existing MUC Limited guidelines. Close facilities and retain Federal ownership.	On 50 acres encumbered by the former and current Shoshone community landfill site, public lands would be redesignated from MUC Limited to Unclassified to facilitate conveyance out of Federal ownership to the County of Inyo.	Alternative 2.

2.12 WILD AND SCENIC RIVER ELIGIBILITY

Federal agencies such as the Bureau of Land Management (BLM) have been mandated to evaluate potential additions to the National Wild and Scenic River System (NWSRS) per Section 5(d) of the Wild and Scenic Rivers Act of 1968 (16 United States Code 1271-1287, *et seq*). Title 36 of the Code of Federal Regulations (CFR), Subpart 297, addresses management of Wild and Scenic Rivers. Title 43 CFR, Subpart 8350, specifically addresses designation of management areas. NWSRS study guidelines have also been published in Federal Register Volume 7, Number 173 (September 7, 1982), for public lands managed by the U.S. Departments of Agriculture and Interior. Additional guidance on wild and scenic rivers (WSR) is provided in BLM Manual 8351.

The NWSRS study process includes three regulatory steps:

1. Identification of what river(s) and/or river segment(s) are eligible for WSR designation;
2. Determination of eligible river(s) and/or segment(s) potential classification with respect to wild, scenic, recreational designation, or any combination thereof; and
3. Conducting a suitability study of eligible river(s) and/or segment(s) for inclusion into the NWSRS, via legislative action. An environmental impact statement (EIS) is commonly prepared to document the analysis needed for this suitability determination/WSR designation.

Any river or river segment on public lands found eligible for inclusion in the NWSRS is to be managed as if this river/segment were designated, until such time as a suitability determination is made. This requires management of public lands within 0.25 mile of the subject river/segment, to conform to management standards and guidelines presented in applicable Federal agency manuals for wild and scenic rivers until the suitability determination is completed.

If a river or river segment is found suitable for inclusion to the NWSRS, the U.S. Congress must then pass legislation so designating this river/segment, prior to its formal addition to the NWSRS. In addition to Federal agencies, private individuals and/or groups, as well as State governments, can nominate rivers and/or segments for inclusion.

The first two steps, i.e., eligibility and classification, are documented in this report, covering portions of three different streams within the planning area, and the impacts evaluated in the NEMO Environmental Impact Statement. The remaining suitability determinations would be completed subsequently, and analyzed in an EIS format. The results of the suitability determinations would amend the applicable land use plan, i.e., the California Desert Conservation Area (CDCA) Plan (BLM 1980, as amended). Refer to Appendix O for eligibility and classification of three segments of the Amargosa River, Appendix S for eligibility and classification of one segment of Cottonwood Creek, and Appendix T for eligibility and classification of two segments of Surprise Canyon.

2.13 CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS

Additional alternatives were considered but dismissed from further analysis in this planning effort for a variety of reasons. Following is a review of some of the alternatives receiving the most discussion.

Regional standards of public land health are to be developed in consultation with local Resource Advisory Councils (43 CFR 4181). BLM in consultation with California Desert District Advisory Council developed the standards and guidelines presented in Section 2.1.2, Alternative 2. They are similar to those developed by Resource Advisory Councils in other regions and consistent with the regulatory parameters for development of regional guidelines; therefore other alternatives are not considered.

For desert tortoise recovery, an alternative to withdraw one or more areas from mineral entry was considered. The desert tortoise Recovery Plan recommended withdrawal of Ivanpah Valley. Withdrawal was dismissed because the cumulative surface disturbance limitation within the desert tortoise Desert Wildlife Management Areas (DWMAs) effectively addresses the issue. In addition, the DWMAs do not contain high mineral potential, except for sand and gravel which is a common variety mineral.

A grazing management alternative was considered but dismissed that would have prohibited cattle feeding supplements (i.e., protein, nitrogen, and energy) in the DWMAs. However, use of supplements is such an integral and vital part of cattle ranching on open rangelands that elimination of feeding supplements would end grazing operations in DWMAs, an option that is already addressed in Alternative 2 for desert tortoise recovery.

An alternative that restricts parking and camping distance to 15 feet from route centerline was considered but dismissed. This distance was used in the Las Vegas Resource Management Plan immediately adjacent to the proposed Piute Valley ACEC. Recreational use in Nevada is higher due to its closer proximity to Las Vegas than in the NEMO Planning Area, where use is generally low. The BLM intends to establish one standard for general public vehicular access within DWMAs throughout the CDCA in order to ease public education and compliance in the California Desert. Therefore, the NEMO planning effort identified a range of alternatives consistent with other planning efforts in the CDCA for general vehicular access. Site-specific issues can be identified and addressed in each ACEC as needed.

An alternative for Amargosa vole and T&E plant recovery was considered but dismissed that would have designated the recovery areas as wildlife habitat management areas (WHMAs) instead of ACECs. This alternative was dismissed because the habitat management plans would not override MUC guidelines and, hence, would not be effective in limiting the effects of conflicting activities.

An additional alternative for T&E plant recovery at Carson Slough was considered and dismissed that would have used the existing Salt and Brackish Water Marsh Unusual

Plant Assemblage to define the boundaries of the ACEC. It was dismissed from further analysis because the UPA boundaries were based on different resource values than the listed plants that are the focus of the ACEC protection strategies proposed.

Under the California Desert Protection Act (CDPA), portions of four ACECs had acreage transferred to the National Park Service. For three of these ACECs (Clark Mountain, Saline Valley, and Surprise Canyon), alternatives were considered and dismissed from further analysis that would have deleted the ACECs if the remaining areas did not still meet ACEC importance and relevance criteria. The fourth is Greenwater Canyon ACEC, and it is proposed for deletion in this document.

Another CDPA provision released from wilderness consideration approximately 45 measurable parcels of public lands that had been portions of wilderness study areas. The multiple-use class is being established on all of these parcels in this planning effort. In addition, one of these areas, located in the Southern Panamints adjacent to Death Valley National Park and Fort Irwin National Training Center, was given preliminary ACEC consideration. Sufficient data does not exist to establish importance and relevance criteria at this time, so this ACEC proposal was dismissed from further consideration.

Public input was provided during scoping for consideration of all wash routes for “limited” access to be provided during fall hunting season. This strategy is inconsistent with the route-by-route designation strategy required in the CDCA Plan and would present specific conflicts with T&E species conservation and recovery. Within DWMAs, the first consideration for all washes is their suitability and value as desert tortoise habitat. Washes that have conventionally been used as routes of travel on a regular basis and/or do not meet criteria as suitable and valuable desert tortoise habitat received further field survey in the DWMAs to determine whether they provided a primary recreational access linkage in the route network. Although, the alternative suggested during scoping was not considered further for analysis, individual wash routes may be considered for a specific designation under most alternatives through the NEMO or subsequent land-use planning process, to address the concerns identified.

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Summary of Impacts - Standards and Guidelines		
Resources	Alternative 1 (No Action)	Alternative 2 (Preferred)
Vegetation	<ul style="list-style-type: none"> The growing period is expected to increase for perennial forage species. Long-term increase in perennial plants adjacent to range improvements. 	<ul style="list-style-type: none"> Impacts are similar to the No Action Alternative. The same benefits in grazing allotments are expected on all public lands.
T&E Plants	<ul style="list-style-type: none"> Population of T&E plants will benefit similarly to other vegetation 	<ul style="list-style-type: none"> See vegetation above for impacts.
Noxious weeds	<ul style="list-style-type: none"> Substantial decrease in specific noxious weeds that respond to management techniques. 	<ul style="list-style-type: none"> See vegetation above for impacts.
Wetlands & Riparian & Floodplains	<ul style="list-style-type: none"> Riparian species at certain spring sources within the Last Chance and South Oasis Allotments would improve to meet properly functioning conditions. Continued overall riparian wetland condition improvement within allotments. 	<ul style="list-style-type: none"> See vegetation above for impacts.
Wildlife	<ul style="list-style-type: none"> Increases in plant vigor, biomass, and seed production will provide increased food sources. Increases in plant cover and litter will provide increased shelter against weather and predation. Improvements in structure, diversity and size of riparian habitats will be especially effective in increasing animal diversity and sustaining migratory bird populations. 	<ul style="list-style-type: none"> Guidelines are stronger and more definitive in Alternative 2, greater benefits for wildlife communities can be expected and over a wider geographic area to cover all public lands.
T&E	<ul style="list-style-type: none"> See above wildlife impacts 	<ul style="list-style-type: none"> See above wildlife impacts
Existing ACECs	<ul style="list-style-type: none"> See above wildlife impacts 	<ul style="list-style-type: none"> See above wildlife impacts
Soil, Water, Air	<ul style="list-style-type: none"> Reduced erosion rates due to modified grazing practices. Small reductions in particulate (PM₁₀) emissions could result from better vegetative cover and reduced wind erosion within grazing allotments that are not meeting standards. 	<ul style="list-style-type: none"> Same as Alternative 1 except benefits from regional standards would cover all public lands.
Water Quality/ Quantity	<ul style="list-style-type: none"> Will reduce sedimentation and increase infiltration rates. 	<ul style="list-style-type: none"> Similar to Alternative 1 but greater benefits to water quality can be expected based on more definitive guidelines
Wilderness & Visual	<ul style="list-style-type: none"> Managing ecosystem health in accordance with S&Gs will generally benefit wilderness Site-specific "minimum tool analysis" would occur for all projects. 	<ul style="list-style-type: none"> Same as Alternative 1 but covers all wilderness in the plan area.
Wild & Scenic Rivers	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> No Impacts
Cultural/Native American	<ul style="list-style-type: none"> There are no direct impacts. Specific implementation actions may adversely affect resources. 	<ul style="list-style-type: none"> Same as Alternative 1 but covers all public lands
Existing ACECs	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> No Impacts
Recreation	<ul style="list-style-type: none"> Possible closure of some access routes. 	<ul style="list-style-type: none"> Same as Alternative 1 but covers all public lands
Cattle Grazing	<ul style="list-style-type: none"> Temporary or permanent decrease in some authorized forage allocations on allotments. Changes in livestock class for better distribution and increased range improvements. 	<ul style="list-style-type: none"> Same as Alternative 1 plus: Cattle activities associated with natural sources of water would be further restricted.
Wild Horse & Burro	<ul style="list-style-type: none"> If one or more of the rangeland health standards are not being due to wild horses and burros, actions may include, removal and placement into the National Wild Horse and Burro Adoption Program, erecting fences, and/or providing additional improvements such as water sources on other public lands. 	<ul style="list-style-type: none"> Same as Alternative 1 but covers all public lands
Minerals & Mining	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> No Impacts
Vehicle Access	<ul style="list-style-type: none"> Possible closure of some access routes. 	<ul style="list-style-type: none"> Same as Alternative 1 but covers all public lands
Land Uses / utilities	<ul style="list-style-type: none"> No impacts. 	<ul style="list-style-type: none"> No impacts.
Socioeconomic	<ul style="list-style-type: none"> Meeting and maintaining standards has resulted in some increased cost of doing business and will continue to do so over the long-term. 	<ul style="list-style-type: none"> Impacts are the same as Alternative 1 except in the long-term, public lands that meet standards, are also socioeconomic benefit, for local communities and tourism.

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Summary of Impacts - Desert Tortoise Conservation and Recovery					
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Preferred
Vegetation	<ul style="list-style-type: none"> Some increase in plant diversity biomass cover and seedling survival. 	<ul style="list-style-type: none"> Increased above ground biomass, plant reproduction, and vigor. Anticipated upward trend in vegetation condition. 	<ul style="list-style-type: none"> Same as Alt 2 except that it covers a smaller area 	<ul style="list-style-type: none"> Less beneficial to vegetation than Alternative 2 or 3 because it covers a smaller area and grazing and burros would generally continue in existing areas. 	<ul style="list-style-type: none"> Same as Alt 3.
Noxious weeds	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> Some benefits from efforts to enhance habitats and rehab surface disturbances 	<ul style="list-style-type: none"> Same as Alt 2 only covering a smaller area. 	<ul style="list-style-type: none"> Same as Alt 3 only covering a smaller area. 	<ul style="list-style-type: none"> Same as Alt 3
Wildlife	<ul style="list-style-type: none"> Impacts to wildlife populations are generally low. Impacts from major Highways (I-15 and I-40, Highway 95) can be expected to continue. Disturbance from closed routes and new projects 	<ul style="list-style-type: none"> Same as Alt 1 plus: Reduced competition for forage, trampling of animals, reduction in disturbed areas on trails and at watering sites. Decreased parking and camping distances off routes would reduce habitat loss 	<ul style="list-style-type: none"> Beneficial impacts would be similar to those described for Alternative 2 but over a smaller area and with lower reductions in burro and cattle use 	<ul style="list-style-type: none"> Similar to those described for Alternative 3 but over a smaller area and with continued effects of burro trailing and grazing in Shadow Valley. Non-lethal control of ravens (mitigation, sanitation, etc.) will help in the control and proliferation of ravens, but there is still the potential that some ravens will continue to be selective on juvenile tortoises. Limiting the removal of such ravens through non-lethal means will be largely ineffective and may adversely affect the recovery of the species. 	<ul style="list-style-type: none"> Impacts to general wildlife populations and habitats will be similar to Alternative 3.
T&E Animals	<ul style="list-style-type: none"> No immediate strategy to ongoing significant areas of concern. That have resulted in natural processes that are not functioning properly Continuation of cumulative habitat fragmentation. Protection of T&E on a site-specific basis. 	<ul style="list-style-type: none"> Most beneficial to long term recovery of desert tortoise. Projected reduction of mortality and increase in vigor and recruitment rate in 354,300 acres identified for DWMA's under ACEC prescriptions. Programmatic strategy for all high value DT habitat 	<ul style="list-style-type: none"> 29,110 acres less critical habitat under ACEC Mgt. than Alt 2. Beneficial to long term recovery of desert tortoise, but less than Alt 2. Projected reduction of mortality and increase in vigor and recruitment rate, but less than Alt 2. Programmatic strategy for all high value DT habitat 	<ul style="list-style-type: none"> 114,060 acres less critical habitat under ACEC Mgt. than Alt 3. Beneficial to long term recovery, but less than Alt 2 or 3. Projected reduction of mortality and increase in and recruitment rate, but less than Alt 2 or 3 	<ul style="list-style-type: none"> Similar to Alternative 3 except excludes high value DT habitat (9,696 acres) west of Turquoise Mtn. Road.
Soil-Water-Air	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> Reduced erosion rates, less soil compaction within DWMA's 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alternative 3
Cultural /Native American	<ul style="list-style-type: none"> Impacts would continue, particularly near water sources. 	<ul style="list-style-type: none"> Impacts would decrease, particularly near water sources. Surface disturbance limitations would reduce impacts from existing activities. Ground-disturbing activities may adversely affect resources. 	<ul style="list-style-type: none"> Same as Alt 2 except: Impacts would not decrease in Northern Ivanpah Valley area. Less acreage would be in MUC L than in Alt 2. 	<ul style="list-style-type: none"> Same as Alt 2 except: impacts would not decrease in Northern Ivanpah Valley or Shadow Valley areas and less acreage would be in MUC L than in either Alt 2 or 3. 	<ul style="list-style-type: none"> Same as Alternative 3 except: Impacts would not decrease in Turquoise Mtn. Area.

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Summary of Impacts - Desert Tortoise Conservation and Recovery					
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Preferred
Recreation	<ul style="list-style-type: none"> Some reduction in routes for recreation use and access. Stopping, parking, camping could occur within 300 feet of centerline within DWMA's. 	<ul style="list-style-type: none"> Same as Alt. 1 except: Stopping, parking, camping would be limited to 50 feet from centerline within DWMA's. 	<ul style="list-style-type: none"> Same as Alternative 2 except stopping, parking, camping would be limited to 100 feet from centerline within DWMA's. 	<ul style="list-style-type: none"> Same as Alternative 1 	<ul style="list-style-type: none"> Same as Alternative 3
Cattle Grazing	<ul style="list-style-type: none"> Continued parameters on grazing use based on the status of the desert tortoise forage conditions and range assessments. Some allotments may be voluntarily canceled based on third party buy-outs 	<ul style="list-style-type: none"> Grazing within 8 allotments within DWMA's would be eliminated. Cancellation of grazing in DWMA's for 8 allotments would result in discontinuation of grazing on 5 allotments and a substantial reduction in cattle operations in 3 allotments with associated income. 	<ul style="list-style-type: none"> Grazing within 5 allotments within DWMA's would have minimum forage allocations of 230 lbs air dry weight per acre for spring grazing to occur. Grazing within one ephemeral allotment would be eliminated. Cancellation of the ephemeral allotment will result in small impacts to cattle operations. Addition of a minimum spring forage allocation to five allotments will result in substantial increases in the cost of doing business and may result in lost income in years when no turn-out is permitted. 	<ul style="list-style-type: none"> Same as Alt 1 except: ephemeral portions of 5 allotments would be canceled within DWMA's Grazing within one ephemeral allotment would be eliminated Cancellation of ephemeral portions of AUMs will result in small impacts to cattle operations in five allotments with lost income from extra cows in about 4 years out of 20. 	<ul style="list-style-type: none"> Impacts are the same as Alt 3.
Wild Horse & Burro	<ul style="list-style-type: none"> Continued burro removals within the HMA until the overall AML is achieved focusing on Critical habitat 	<ul style="list-style-type: none"> Complete removal of burro herd in Clark Mountain Burro HA. Cumulative effect of burro herd losses in CDCA. 	<ul style="list-style-type: none"> Similar to Alt 1 but critical habitat would be further targeted for removals and the eastern portion of the HMA would be targeted for management of some burros. 	<ul style="list-style-type: none"> Same as Alt 1 	<ul style="list-style-type: none"> Same as Alt 3
Minerals & Mining	<ul style="list-style-type: none"> Impacts would continue unchanged consistent with existing State agreements and biological opinions. 	<ul style="list-style-type: none"> Plans of Operations on small mining actions for 48,642 acres changed to MUC L. Limitation within DWMA's on surface disturbance to 1% could impact mining particularly if the threshold is reached. Programmatic BO up to 100 acres could expedite approval process on mining actions 	<ul style="list-style-type: none"> Impacts are the same as Alt 3 except: requirement for Plans of Operations would affect 42,713 acres changed to MUC L. 	<ul style="list-style-type: none"> Same as Alt 2 except: requirement for Plans of Operations would affect 3,960 acres changed to MUC L. 	<ul style="list-style-type: none"> Impacts are the same as Alternative 3 except requirement for Plans of Operations would affect 30,010 acres changed to MUC L.
Vehicle Access	<ul style="list-style-type: none"> Some reduction in routes for use and access. 	<ul style="list-style-type: none"> Same as Alt 1 plus Minor washes designated for closing in DWMA's 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alternative 2 	<ul style="list-style-type: none"> Same as Alt 2
Socioeconomic	<ul style="list-style-type: none"> See Grazing above Tourism growth can be expected to continue 	<ul style="list-style-type: none"> See Grazing above Tourism growth can be expected to continue 	<ul style="list-style-type: none"> See Grazing above Tourism growth can be expected to continue 	<ul style="list-style-type: none"> See Grazing above Tourism growth can be expected to continue 	<ul style="list-style-type: none"> See Grazing above Tourism growth can be expected to continue

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Summary of Impacts - Amargosa Vole Conservation and Recovery				
Resource	Alternative 1	Alternative 2	Alternative 3 (Preferred)	Alternative 4
Vegetation	<ul style="list-style-type: none"> Overall impacts of Alt 1 on riparian wetland vegetation and related resources are moderately positive. 	<ul style="list-style-type: none"> General beneficial effects from habitat management emphasis. 	<ul style="list-style-type: none"> Positive impacts would be similar to those for Alt 2, but would be somewhat lower in the Shoshone riparian portion of the corridor. 	<ul style="list-style-type: none"> Positive impacts would be similar to those for Alt 2, but would be lower outside the ACEC in the riparian corridor. Watershed management benefits under this alternative would be modest in comparison with Alt 2/3.
T&E Plants	<ul style="list-style-type: none"> Tecopa birdsbeak is a rare plant species in the Grimshaw Natural Area ACEC and receives protection there. No other special status plants are known from the existing ACECs. 	<ul style="list-style-type: none"> A population of Tecopa birdsbeak a few miles south of Shoshone would be included in the expanded ACEC. It would be an additional focus for protection measures in subsequent ACEC planning. No other special status plants are known to be within the expanded ACEC. 	<ul style="list-style-type: none"> Impacts are the same as Alternative 2. 	<ul style="list-style-type: none"> Impacts are the same as Alternative 1 (No Action).
Noxious weeds	<ul style="list-style-type: none"> Exotic plants on private lands in the Shoshone stretch of the river which are displacing native vegetation would not be removed, and riparian restoration would not occur except where initiated by land owners. 	<ul style="list-style-type: none"> Exotic plants (<i>Tamarix</i> spp.) on private lands within the Shoshone stretch of the river that are gradually displacing native vegetation would be removed and riparian restoration activities would occur, following Federal acquisition from willing sellers. Exotic seed source problem could then be reduced or eliminated. 	<ul style="list-style-type: none"> Removals of noxious weeds would be similar to those described in Alternative 2 but over an area 2,400 acres smaller and, hence, with reduced effectiveness. 	<ul style="list-style-type: none"> The effects on removal of noxious weeds would be similar to those described in Alternative 2 or 3 but over a smaller area and, hence, with reduced effectiveness.
Wetlands & riparian	<ul style="list-style-type: none"> Riparian habitats on public lands would continue to receive improvement by the removal of exotic tamarisk and replanting of native trees. Exotics in this area would likely continue to serve as a seed source for further exotic plant establishment in downstream portions of the Amargosa River. 	<ul style="list-style-type: none"> Prescriptions would be developed for a single, coordinated, watershed-based ACEC Enhancement of riparian and wetland values would occur as tamarisk removal efforts were extended over a wider portion of the watershed (see the discussion above for Riparian/Wetlands). 	<ul style="list-style-type: none"> Impacts to plant communities would be similar to those described in Alt 2 but over an area 2,400 acres smaller. 	<ul style="list-style-type: none"> Impacts to plant communities would be similar to those described in Alternative 1 within the Amargosa vole ACEC. The Carson Slough plant ACEC would be addressed separately as well.
Wildlife	<ul style="list-style-type: none"> Habitats on public lands would continue to receive improvement by the removal of exotic tamarisk and replanting of native trees. Consolidation of additional habitat important to migratory birds would not occur. 	<ul style="list-style-type: none"> General beneficial effects from habitat management emphasis. Additional beneficial effects from habitat management emphasis including the Shoshone riverine area. 	<ul style="list-style-type: none"> Impacts to general wildlife resources would be similar as Alternative 2, except that additional habitat management emphasis would not be provided in the Shoshone riverine area or in the Shoshone Cave Whip-Scorpion HMP area. 	<ul style="list-style-type: none"> Impacts to general wildlife resources would be similar as Alternative 2, except that additional habitat management emphasis would not be provided in areas outside of the smaller designated ACEC. General beneficial effects from habitat management emphasis.
T&E	<ul style="list-style-type: none"> Fragmented ownership of habitat would continue. Current ACEC management would continue for the vole. 	<ul style="list-style-type: none"> Combined ACEC totaling 19,760 acres of public lands, including 10,450 additional acres would benefit vole. Acquisition opportunities for private lands to reduce/eliminate habitat fragmentation, 	<ul style="list-style-type: none"> Combined ACEC totaling 17,000 acres of public lands, including 8,050 additional acres would benefit vole. Acquisition opportunities for private lands to reduce/ eliminate habitat 	<ul style="list-style-type: none"> Combined ACEC of 4,520 acres of public lands, all of which would be critical habitat, would benefit vole. Acquisition opportunities for private lands to reduce/eliminate habitat

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Summary of Impacts - Amargosa Vole Conservation and Recovery				
		<p>thus benefiting the vole</p> <ul style="list-style-type: none"> The impacts are positive and significant for the Amargosa vole, both in the near-term and over the life of the ACEC management plan. 	<p>fragmentation, thus benefiting the vole.</p>	<p>fragmentation would occur, but to a lesser degree. Benefit to the vole would be less than Alts 2 and 3.</p> <ul style="list-style-type: none"> Some consolidation of currently fragmented vole habitat would occur. Impacts are still considered positive and significant for the Amargosa vole over the life of the ACEC management plan.
Existing ACECs	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> Combine the two existing ACEC's 	<ul style="list-style-type: none"> Not included in the new Amargosa River ACEC in this alt is the acquisition of 850 acres of private lands along the Amargosa River in the vicinity of Shoshone. 	<ul style="list-style-type: none"> Designate the Amargosa vole ACEC. This ACEC designation would not include the existing Amargosa Canyon and Grimshaw Lake Natural Areas.
Soil, water, Air	<ul style="list-style-type: none"> Soil erosion rates will continue at current rates. Impacts from the no action alt represent non-point-source impacts which are controlled by Best Management Practices (BMP). Portions of the MUC and ACEC guidance for the CDCA Plan and specific management actions in the Amargosa and/or Grimshaw Natural Area ACEC Plans represent BMP under the Clean Water Act. Small reductions in particulate (PM₁₀) emissions could result from better vegetative cover and reduced wind erosion within the ACECs. 	<ul style="list-style-type: none"> Reduced sedimentation and increased infiltration rates The Amargosa watershed would derive increased benefits from coordinated watershed protection strategy and increased monitoring focus. Air: Impacts would be the same as the no action alternative. 	<p>Soil: Impacts would be the same as Alternative 2 but somewhat less beneficial due to the smaller area covered.</p> <p>Water: Impacts would be the same as Alternative 2.</p> <p>Air: Impacts would be the same as the no action alternative.</p>	<p>Soil: Impacts would be the same as Alternative 2 but somewhat less beneficial due to the smaller area covered.</p> <p>Water: Impacts would be the same as Alternative 2.</p> <p>Air: Impacts would be the same as the no action alternative.</p>
Water Quality	<ul style="list-style-type: none"> See above 	<ul style="list-style-type: none"> See above 	<ul style="list-style-type: none"> See above 	<ul style="list-style-type: none"> See above
Wild & Scenic	<ul style="list-style-type: none"> Identified Wild and Scenic designation for the Amargosa River 	<ul style="list-style-type: none"> Identified Wild and Scenic designation for the Amargosa River 	<ul style="list-style-type: none"> Identified Wild and Scenic designation for the Amargosa River 	<ul style="list-style-type: none"> Identified Wild and Scenic designation for the Amargosa River
Cultural /Native American	<ul style="list-style-type: none"> Gradual loss of resources due to continued public access and uses compared to Alternatives 1, 2, and 3. 	<ul style="list-style-type: none"> Inclusion of significant resources in expanded ACEC would increase protection and preservation. Vegetative habitat manipulation could negatively impact resources. 	<ul style="list-style-type: none"> Inclusion of significant resources in expanded ACEC would increase protection and preservation. Fewer resources protected than with Alt 1 due to smaller area in ACEC. Vegetative habitat manipulation could negatively impact resources 	<ul style="list-style-type: none"> Inclusion of resources in expanded ACEC would increase their protection and preservation. Far less resources protected than with Alts 2 and 3 due to far smaller area in ACEC. Vegetative habitat manipulation could negatively impact resources.
Recreation	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> Moderate positive benefit to recreation resources and activities. 	<ul style="list-style-type: none"> Where the actions in this alt improve the natural resources, they also improve the setting for nature-based recreation. 	<ul style="list-style-type: none"> Impacts are similar to Alternative 2.
Minerals & Mining	<ul style="list-style-type: none"> Overall impacts of the Alternative 1 on mineral development is deemed to 	<ul style="list-style-type: none"> Grimshaw Lake/Tecopa portion of the alt; proposed expansion includes existing sand 	<ul style="list-style-type: none"> Same as Alternative 1 	<ul style="list-style-type: none"> Same as Alt 1

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Summary of Impacts - Amargosa Vole Conservation and Recovery				
	be low except for geothermal development in the existing ACEC.	and gravel pit and would severely curtail Inyo County's ability to maintain its roads. ACEC guidelines would likely deny expansion of the pit when permit is renewed in the year 2000.		
Vehicle Access	<ul style="list-style-type: none"> Some indirect impacts may occur from development on adjacent private lands including proliferation of routes. These indirect impacts can be mitigated by additional route designation on MUC L public lands and within the existing ACECs, as needed. 	<ul style="list-style-type: none"> New route designation is unlikely to be a substantial change from the existing situation in the Amargosa. Recreation uses may be impacted within the ACEC, just as they may in current critical habitat. 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alt 2.
Land Use	<ul style="list-style-type: none"> Proposed activities in critical would continue to require consultation with the USFWS. Impacts from development on adjacent private lands include incidental take, loss or degradation of habitat from recreational use, proliferation of routes, and illegal dumping. 	<ul style="list-style-type: none"> Impacts to development include limitations on future rights-of-way or land-use permits, particularly where riparian impacts could occur, to be developed and analyzed in conjunction with ACEC management plans. Changes will result in increased costs and may preclude some activities in the ACEC. New locatable mining activities would require a plan of operations in conjunction with environmental assessment and biological consultation. 	<ul style="list-style-type: none"> Impacts to Land use are similar in scope as Alternative 2, except they would affect approximately 2,400 acres less. 	<ul style="list-style-type: none"> Impacts are the same in scope and acreage affected as Alt 1.

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Summary of Impacts - T&E Plant Conservation and Recovery - Lower Carson Slough			
Resource	Alternative 1	Alternative 2 (Preferred)	Alternative 3
Vegetation	<ul style="list-style-type: none"> Potential negative to vegetation from mining notices south of Ash Meadows Road. 	<ul style="list-style-type: none"> Riparian, alkali marsh, and mesquite bosque communities on 4,340 acres of public lands would be designated as the Lower Carson Slough ACEC. Management actions to monitor, protect and study these communities would ensure their conservation and function. 	<ul style="list-style-type: none"> Impacts would be similar to those in Alt 2 but on 1,540 acres of critical habitat for the niterwort and gumplant.
T&E Plants	<ul style="list-style-type: none"> No specific management for recovery of Amargosa niterwort, ash meadow gumplant and spring-loving centaury would be identified. Protective actions would be implemented as actions which may threaten plants are proposed on a case-by-case basis, and ACEC designation would not occur. 	<ul style="list-style-type: none"> Amargosa niterwort, Ash Meadows gumplant, and spring-loving centaury on 4,340 acres of public lands on both sides of Ash Meadows Road including and between both designated critical habitat units would be designated Lower Carson Slough ACEC. 	<ul style="list-style-type: none"> Impacts would be similar to those in Alternative 2 but on 1,540 acres of critical habitat for the niterwort and gumplant.
Noxious Weeds	<ul style="list-style-type: none"> Similar to Alt 1 of Standards and Guidelines 	<ul style="list-style-type: none"> Similar to Alt 2 of Standards and Guidelines 	<ul style="list-style-type: none"> Similar to Alternative 2 of Standards and Guidelines
Wetlands, Riparian & Floodplains	<ul style="list-style-type: none"> See the discussion on General Vegetation 	<ul style="list-style-type: none"> See the discussion on General Vegetation 	<ul style="list-style-type: none"> Impacts would be less than Alt 2 as the Lower Carson Slough riparian area would not benefit from prescriptions and management developed in an ACEC plan.
Wildlife	<ul style="list-style-type: none"> One of the few such wetland areas in the CDCA administered by the BLM not managed under specific prescriptions in an ACEC mgt plan. 	<ul style="list-style-type: none"> Wildlife species dependent upon wetland and riparian habitat would benefit from the improved management of these communities. 	<ul style="list-style-type: none"> Impacts would be less than Alternative 2 as less of the Lower Carson Slough riparian habitat would benefit from prescriptions and management developed in an ACEC plan.
T&E Animals	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> See the discussion on General Wildlife 	<ul style="list-style-type: none"> See the discussion for General Wildlife
Soil, water, Air	<ul style="list-style-type: none"> Impacts from the no action alternative represent non-point-source impacts which are controlled by Best Management Practices (BMP). Portions of the MUC guidance for the CDCA Plan and specific management actions in the Carson Slough area and the UPA represent BMP under the Clean Water Act. These practices include removal of exotic tamarisk and replacement with native species, route closures and restrictions on vehicle use, monitoring of surface waters, and providing hydrologist review of projects. These BMPs reduce sedimentation and increase infiltration rates. These are desirable and are positive steps toward solution of the impaired watershed classification, which occurs in portions of this watershed. Implementation of fallback standards as identified in 4.1.1 will provide some beneficial impacts to air and water quality and quantity. 	<ul style="list-style-type: none"> Impacts would be similar to Alt 1 and potential for soil erosion would be decreased by parameters on activities and uses within the ACECs including growth of horse and burro populations and surface disturbance limitations. Impacts would be similar to Alternative 1 but added focus on exotic and invasive species removal, monitoring of surface and groundwater, and assessing proper functioning condition of the wetland and riparian habitat through the implementation of regional standards and guidelines will provide additional benefits to water resources. Air quality would not be affected by Alternative 2 for T&E plant conservation and recovery except as identified in 4.1.2, implementation of regional standards. 	<ul style="list-style-type: none"> Beneficial impacts are the same as Alternative 2 but would affect 2,800 acres less.
Recreation	<ul style="list-style-type: none"> Results in minor impacts to vehicular access, 	<ul style="list-style-type: none"> Positive impact on recreation through enhancement 	<ul style="list-style-type: none"> Impacts are the same as Alternative 2.

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Summary of Impacts - T&E Plant Conservation and Recovery - Lower Carson Slough			
Resource	Alternative 1	Alternative 2 (Preferred)	Alternative 3
	and therefore, to recreation.	of a more natural environment and trail system.	
Wild Horse & Burro	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> Would result in the removal of drift burros from adjacent lands and placement in the BLM's adoption program. Would prevent a substantial increase in the animals from occurring at some future date 	<ul style="list-style-type: none"> Impacts are the same as Alt 2.
Minerals & Mining	<ul style="list-style-type: none"> An active zeolite mine five miles east of Death Valley Junction would not be affected except for T&E plant survey and appropriate mitigation if an expansion of the mine is proposed. 	<ul style="list-style-type: none"> Impacts are the same, as Alternative 1 except public lands south of Ash Meadows Road (1,290 acres) would be managed according to MUC L guidelines. (Plan of Operations requirement for small mining operations) 	<ul style="list-style-type: none"> Impacts are similar to Alternative 2 but approximately half as much acreage would be affected by requirements for Plans of Operation for small mining operations.
Vehicle Access	<ul style="list-style-type: none"> Supplemental route designation may be pursued north of Ash Meadows Road as time and resources permit to protect sensitive soils riparian areas, and T&E plants. 	<ul style="list-style-type: none"> Some routes may be closed to protect listed plants and sensitive soil complexes based on results of analysis and survey including on 1,290 acres south of Ash Meadows Road. 	<ul style="list-style-type: none"> Impacts are similar to Alternative 2 but would affect about half as much acreage south of Ash Meadows Road.

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Summary of Impacts - Bat Conservation in the Silurian Hills			
Resource	Alternative 1	Alternative 2	Alternative 3 (Preferred)
Wildlife	<ul style="list-style-type: none"> • Sensitive biological resources would continue to be subject to potential effect from notice-level mining actions within 15 days of filing. • Mitigation designed to minimize active mining impacts to bats/mine-dwelling and their habitat in the area would continue to be difficult to effectively achieve with the short review period. • Little agency emphasis would be extended to studying how best to conserve bats/mine dwelling wildlife and habitat 	<ul style="list-style-type: none"> • A habitat management plan would be developed with management direction consistent with guidance outlined in the BLM's bat management policies, the CDCA Plan, and any State or Federal bat species listings, should they occur • Establishment of this HMP could eventually result in additional parameters on future authorized activities or access. • Could identify additional parameters on land-use activities. 	<ul style="list-style-type: none"> • The review period for identification of mitigation measures for these sensitive biological resources would be increased from 15 days to 30 days. • Preparation of an environmental assessment would be required on all mining actions on affected public lands. • Anticipated to result in limited route closures/seasonal restrictions for the benefit of bats and other mine dwelling wildlife. • Bat habitat would gain greater protection
T&E Animals	<ul style="list-style-type: none"> • Protection of BLM sensitive and other bat species known to reside in wintering or nursery roosts within inactive mines would occur on a case-by-case basis as proposals for mining and other activities are received. 	<ul style="list-style-type: none"> • A habitat management plan (HMP) would be developed that implements management direction provided in BLM's bat management policies. • Habitat for bats and other cave-dwelling species would receive the benefits of a deliberate and focused strategy for protecting caves and abandoned mines in the Silurian Hills. A study plan to enhance conservation of bat habitat would occur. 	<ul style="list-style-type: none"> • Same as Alt 1 except: programmatic measures for consistent application to all activities can be developed that protect and enhance bat populations
Cultural / Native American	<ul style="list-style-type: none"> • Current management practices would continue and some inadvertent affects would occur. 	<ul style="list-style-type: none"> • MUC change to L will enhance potential for identifying cultural resources associated with mineral testing and extraction thereby providing for avoidance or mitigation. • Appropriate rehabilitation of historic period shafts and adits for bat habitat will enhance protection of any remnant cultural resources (historic period mining features). 	<ul style="list-style-type: none"> • MUC change to L will enhance potential for identifying cultural resources associated with mineral testing and extraction thereby providing for avoidance or mitigation. • Appropriate rehabilitation of historic period shafts and adits for bat habitat will enhance protection of any remnant cultural resources
Recreation	<ul style="list-style-type: none"> • No Impacts 	<ul style="list-style-type: none"> • Non-motorized buffers around some inactive mines could limit recreational opportunities for rockhounds, and historic seekers. 	<ul style="list-style-type: none"> • Impacts are the same as Alternative 2.
Minerals & Mining	<ul style="list-style-type: none"> • No Impacts 	<ul style="list-style-type: none"> • The review period for identification of mitigation measures would be increased from 15 days to 30 days. • New small-scale (under 5 acres) mining exploratory activities proposed for old mining adits would be expected to incur some increased costs and time delays due to requirement for an EA in MUC (L). • Impacts would be greater for the smaller (under 1 acre) operations not required to file a reclamation plan with the State that have minimal documentation requirements to operate in MUC (M) areas with no special designations. 	<ul style="list-style-type: none"> • Same as Alt 2
Vehicle Access	<ul style="list-style-type: none"> • Few impacts to vehicle access are anticipated from the No Action Alternative • Access on existing routes of travel with localized restrictions to vehicular access will occur, based of sensitive resources when identified. The network of routes available for casual motorized use will continue to provide reasonable access throughout the planning area 	<ul style="list-style-type: none"> • This alternative would result in minor to moderate negative impacts to vehicle access based on route closures and seasonal limitations identified during HMP planning. Additional public input would occur at that time. 	<ul style="list-style-type: none"> • Impacts would be similar to Alt 2 but may be less since route designation will not be looked at through an HMP

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Summary of Impacts - Released Lands - MUC of Released WSAs			
Resource	Alternative 1	Alternative 2	Alternative 3 (Preferred)
Vegetation	<ul style="list-style-type: none"> There would be no direct impacts on natural resources using the CDCA Plan MUC guidance for released lands. Potential for indirect impacts would continue to occur with less opportunity for mitigation for small mining actions in MUC M areas. Indirect beneficial impacts from route designation in MUC L areas can be anticipated particularly in washes. 	<ul style="list-style-type: none"> Impacts would be similar to Alternative 1 except that the cumulative addition of 85,450 acres in MUC L would result in potential beneficial impacts on those lands, as discussed under No Action. On a parcel by parcel basis, this alternative would be potentially more resource friendly in 8 areas, and partially so in another 4 areas. It would be less resource friendly in 8 areas, and partially so in another 4 areas. 	<ul style="list-style-type: none"> Impacts would be similar to Alternative 1 (No Action) except that the cumulative addition of 76,970 acres in MUC L would result in potential beneficial impacts on those lands, as discussed under No Action. On a parcel by parcel basis, this alternative would be potentially more resource friendly in 5 areas than no action, and partially so in another 4 areas. It would be partially less resource friendly in 2 areas.
Noxious Weeds	• See above	• See above	• See above
Wetlands & Riparian	• See above	• See above	• See above
Existing ACECs	• See above	• See above	• See above
Wildlife	• See above	• See above	• See above
T&E Animals	• See above	• See above	• See above
Existing ACECs	• See above	• See above	• See above
Soil, Water, Air	• See above	• See above	• See above
Water Quality/ Quantity	• See above	• See above	• See above
Cultural/Native American	• No Impacts	<ul style="list-style-type: none"> For those areas designated as MUC M more widespread and more severe impacts might be expected from higher levels of vehicle use, and from shorter time limits for response to mining proposals. 	<ul style="list-style-type: none"> Impacts would be the same as for those areas designated MUC M in Alternative 3, except for those areas designated L which will be the same as Alternative 2.
Recreation	• No Impacts	• No Impacts	• No Impacts
Minerals & Mining	<ul style="list-style-type: none"> Alt 1 cumulatively would be more favorable than Alt 2 or 3 that would provide for fewer released polygons to return to MUC M. The advantage would be the greater applicability of Notice level activity, including in areas with higher mineral potential. On a site-specific basis, the other alternatives may be preferable 	<ul style="list-style-type: none"> Same as Alt 1 except that the addition of 85,450 acres in MUC L would result in potential negative impacts to small exploratory mining activities on those lands, as discussed under No Action. On a parcel by parcel basis, this alternative would be potentially more mineral exploration friendly in 8 areas, and partially so in another 4 areas. It would be less mineral exploration friendly in 8 areas, and partially so in 4 areas. 	<ul style="list-style-type: none"> Same as Alt 1 except that the addition of 76,970 acres in MUC L would result in potential negative impacts to small exploratory mining activities on those lands, as discussed under No Action. This alternative would be slightly more beneficial to mining than alternative 2 on a per acre basis. On a parcel by parcel basis, this alternative would be potentially more mineral exploration friendly in 2 areas than no action. It would be less mineral exploration friendly than no action in 5 areas, and partially so in 4 areas.
Vehicle Access	<ul style="list-style-type: none"> Overall route designation can be expected to result in fewer open routes on released lands identified as MUC L but this may vary on a site-specific basis. 	<ul style="list-style-type: none"> Same as Alt 1: The addition of 85,450 acres in MUC L could result in potential additional limitations to access during route designation on those lands, as discussed under No Action. On a parcel by parcel basis, this alt would be potentially more access friendly in 8 areas, and partially so in 4 areas. It would be less access friendly in 8 areas, and partially so in 4 areas. 	<ul style="list-style-type: none"> Same as Alt 1, The addition of 76,970 acres in MUC L could result in potential additional limitations to access during route designation on those lands, as discussed under No Action. On a parcel by parcel basis, this alternative would be partially more access friendly in 2 areas. It would be less access friendly in 5 areas, and partially so in another 4 areas

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Summary of Impacts - Greenwater Canyon ACEC Deletion Proposal		
Resource	Alternative 1	Alternative 2 (Preferred)
Cultural/Native American	<ul style="list-style-type: none"> No changes to existing situation under Alt 1. Manage under existing ACEC Management Plan. 	<ul style="list-style-type: none"> No known sites would be impacted. As yet unidentified cultural resources within the remaining portion of the ACEC would be managed under MUC L guidelines.
Minerals & Mining	<ul style="list-style-type: none"> Mineral activities in the area currently require plans of operation and special mitigation strategies to prevent impact to any important cultural resources 	<ul style="list-style-type: none"> Impacts are the same as Alternative 1. Lands requiring special mitigation strategies in the BLM ACEC Plan to prevent impact to any important cultural or other natural resources that would have affected mining are now located within Death Valley National Park boundaries.

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Summary of Impacts - Organized Competitive Vehicle Events					
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Vegetation	<ul style="list-style-type: none"> • loss of individual plants through crushing • Disturbance of soil structure supporting vegetation, promotion of weedy species through surface disturbance, loss of soil after loss of soil-holding cryptogamic crusts, loss of seeds in the soil, and reduction of soil moisture through compaction. • Non-native invasive plants also pose an increased potential for larger fires. • Course widening could have a substantial effect on vegetative composition. • Data collected in areas outside desert tortoise habitat where the permitted course width was 100 feet showed that straying and course widening occurred. The course width in the area to the west of a pit area was measured at 260 feet and near Solomons Knob several transects noted race vehicle tracks over 90 feet outside the permitted course width. • There is evidence of substantial motorcycle and 3-wheel ATV play off the road in all directions around the road junction at the Wander Mine, causing substantial shrub damage and road braiding. • As a result of short-cutting and overrunning in washes, the 1989 event caused extensive damage to vegetation and breakdown of wash banks. • Higher than normal levels of dust on leaf surfaces may reduce cooling efficiency of the plants and cause added stress. 	<ul style="list-style-type: none"> • Crushing of vegetation along courses would not occur. • Changes in species composition would be substantially reduced. 	<ul style="list-style-type: none"> • Impacts would be similar to those described in Alternative 1 outside of DWMA's, but sensitive plant communities would be avoided. • Within DWMA's, impacts would be the same as Alt 2. 	<ul style="list-style-type: none"> • Impacts are the same as Alternative 3. 	<ul style="list-style-type: none"> • The impacts of this alternative within the Dumont Dunes off-highway vehicle "Open" area would be the same as Alternative 1 for all resources. The impacts in all other areas of the NEMO Planning Area would be the same as Alternative 2 for all resources.
T&E Plants	<ul style="list-style-type: none"> • Mitigation measures commonly applied would avoid races on routes traversing known habitat of special status plants. However, inventories of special status plants are incomplete. 	<ul style="list-style-type: none"> • The risk of damage to special status plants or their habitat from riders, spectators, and pre-event riders would be removed 	<ul style="list-style-type: none"> • Impacts would be similar to Alt 1 outside of DWMA's but the risk of having an event in habitat of a special status plant would be reduced. Some risk would remain because sensitive plant inventories are incomplete. • Within DWMA's, impacts would be the same as Alt 2. 	<ul style="list-style-type: none"> • Impacts are the same as Alternative 3. 	<ul style="list-style-type: none"> •
Noxious Weeds	<ul style="list-style-type: none"> • Although most of these impacts (e.g., soil profile disruption and compaction, germination and cover site modification, and forb and shrub loss) would be limited to the event corridor itself, the potential for spread of invasive non-native plants and vegetative type-conversion would extend beyond the race corridor. 	<ul style="list-style-type: none"> • Impacts are the same as Alt 2 of Standards and Guidelines 	<ul style="list-style-type: none"> • Impacts are the same as Alt 2 of Standards and Guidelines 	<ul style="list-style-type: none"> • Impacts are the same as Alt 2 of Standards and Guidelines 	<ul style="list-style-type: none"> •
Wetlands, Riparian &	<ul style="list-style-type: none"> • Mitigation measures commonly applied would avoid races on routes traversing riparian or wetland areas 	<ul style="list-style-type: none"> • Impacts are the same as Alt 1 	<ul style="list-style-type: none"> • Impacts are the same as Alt 1 	<ul style="list-style-type: none"> • Substantial strategies would be 	<ul style="list-style-type: none"> •

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Summary of Impacts - Organized Competitive Vehicle Events					
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Floodplains	<ul style="list-style-type: none"> Where avoidance is not feasible MUC guidance and mitigation would be used consistent with fallback standards. 			necessary if a feasible alignment is found.	
Wildlife	<ul style="list-style-type: none"> Loss of forage, changes in forage species composition, and loss of cover would result from disturbance of vegetation. Animals can be run over above ground or below ground. Soil compaction disrupts burrow suitability. In general, it can be expected that species diversity would be reduced along race routes where vegetation and soil disturbances occur. Wildlife activities would be disrupted on the short term, and could include not only the race event but also pre-riding of the course as participants practice. Event could cause reproductive failure for that year. Changes in behavior patterns could occur Wildlife may be injured or killed Habitat degradation could occur 	<ul style="list-style-type: none"> This alternative would benefit wildlife species, as disturbances would be removed. Removal of racing would allow for continued soil and vegetation recovery. Degradation of habitat along race courses would not occur. These and other effects described more fully in Alternative 1 would not occur. 	<ul style="list-style-type: none"> Impacts would be similar to those described in Alternative 1, but important wildlife habitat would be avoided. 	<ul style="list-style-type: none"> The effects would be similar to Alt 3 but additional impacts to riparian habitat may occur. 	<ul style="list-style-type: none">
T&E	<ul style="list-style-type: none"> Where events pass through habitat of a listed animal, there is potential for a take through harm or harassment Habitat loss for special status animals, especially desert tortoise, are a result of factors described in the discussion of General Vegetation above. Heavily used route corridors provide for invasion of weedy species, which in turn may result in type-converted areas that provide reduced cover for hatchling and juvenile tortoises, making them susceptible to predation and death from exposure. The results are areas of reduced tortoise density. The widening of the course may contribute to habitat fragmentation. Tortoise burrows may be crushed Sensitive species such as bighorn sheep, burrowing owls and bats, are likely to be impacted (ranging from temporary displacement from habitat to complete area avoidance). 	<ul style="list-style-type: none"> This alternative would benefit the desert tortoise and possibly other special status animals by removing potential for direct mortality from runovers and by facilitating continued soil and vegetative recovery. 	<ul style="list-style-type: none"> Impacts would be similar to those described in Alt 2 except: outside of DWMA's areas could continue to receive impacts if a viable course is identified. 	<ul style="list-style-type: none"> There is a high potential for take of the desert tortoise by a competitive event held in a narrow wash such as Kingston. Though not designated as critical habitat for the species this wash may act as an important habitat linkage between East and West Mojave desert tortoise populations. Impacts on tortoise are similar to Alt 3. 	<ul style="list-style-type: none">
Soil, Water, Air	<ul style="list-style-type: none"> Soil disturbance and removal of vegetation associated with use of a competitive race course would result in increased wind and water erosion of affected soils. Reduced soil permeability /water storage potential and compaction within the race course would also occur with such use over time. Levels of impact would differ depending on allowed race course width, specific race course segment, and frequency/timing of use. Soil impacts associated with past events were determined to be a reduction in desert pavement coverage and increased 	<ul style="list-style-type: none"> Moderate increases in short-term air quality and soil impacts in OHV open areas as a result of displaced racing activity. 	<ul style="list-style-type: none"> Impacts are the same as Alt 1 	<ul style="list-style-type: none"> Impacts are similar to Alternative 3. Kingston Wash soils have a relatively low potential for wind erosion in comparison to the original Barstow-to-Vegas course, along the Boulder 	<ul style="list-style-type: none">

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Summary of Impacts - Organized Competitive Vehicle Events					
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	<p>development of soft, powder-like materials is very susceptible to wind and water erosion.</p> <ul style="list-style-type: none"> • Soil nutrient levels are expected to decrease over the long term due to the removal of the vegetative cover, from the churning of the soil surface by race traffic, and through the mixing of nutrient poor soils with the more fertile soils associated with “plant islands.” • temporary increase in the amount of oxidants and carbon monoxide along the course. • Air quality standards would be temporarily exceeded based on measurement of total suspended particulates. • The atmosphere surrounding the event would be impacted by the generation of dust and temporary emissions result in a short-term (approximately 14 hours) reduction in air quality. 			Corridor.	
Water Quality/Quantity	<ul style="list-style-type: none"> • On occasion, artificial washes are formed due to soil erosion and altered water drainage along competitive courses particularly on steeper grades. 	<ul style="list-style-type: none"> • No Impact 	<ul style="list-style-type: none"> • Impacts are the same as Alt 1 	<ul style="list-style-type: none"> • Impacts are the same as Alt 1 	<ul style="list-style-type: none"> •
Cultural/Native American	<ul style="list-style-type: none"> • Unidentified sites within or adjacent to event routes may be impacted. • Unsurveyed areas could be subject to impact from vehicles that stray from the course. 	<ul style="list-style-type: none"> • Impacts are the same as Alt 1 	<ul style="list-style-type: none"> • Impacts are the same as Alt 1 	<ul style="list-style-type: none"> • Impacts may occur to two known sites that may be eligible for listing in the National Register of Historic Places and that may be of great concern to Native Americans • No protection is offered to historic routes and trails that may be determined eligible for listing in the NRHP. 	<ul style="list-style-type: none"> •
Recreation	<ul style="list-style-type: none"> • Although the original B-to-V has not been run since 1989, some shorter length may be viable. • Competitive events can be allowed consistent with MUC and Recreation Element guidelines of the CDCA Plan, but it is difficult to locate a suitable race course in the NEMO Planning Area primarily due to resource conflicts. 	<ul style="list-style-type: none"> • The deletion of the race course would have a minimal negative effect to opportunities for competitive vehicle events compared to Alt 1. • If the B-to-V course is deleted and no provisions are made for competitive vehicle events outside OHV open areas potential 	<ul style="list-style-type: none"> • Impacts from the deletion of the B-to-V course would be the same as Alt 2. • This Alternative would allow for resumption of long distance point-to-point competitive events outside of OHV open areas and impacts would be potentially positive. However, as with other alternatives, processing applications would be time consuming and have 	<ul style="list-style-type: none"> • Impacts are similar to Alt 3 but approval of the course would result in additional restrictions associated with protection measures for wilderness, T&E and riparian resources, including speed limits and additional check 	

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Summary of Impacts - Organized Competitive Vehicle Events					
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
		opportunities for this form of recreation could be cumulatively diminished.	uncertain outcomes based on identified resource conflicts, in the NEMO Planning Area.	points.	
Grazing	<ul style="list-style-type: none"> There would be short-term disruption of on-going grazing activities 	<ul style="list-style-type: none"> No Impacts 	<ul style="list-style-type: none"> Impacts would be the same as Alt 1 in any areas where an event is permitted within an allotment. 	<ul style="list-style-type: none"> This revised alignment would result in less potential disruption to cattle grazing than the current corridor. 	<ul style="list-style-type: none">
Vehicle Access	<ul style="list-style-type: none"> No additional access would be provided with this alternative Some access adjacent to the race course could be degraded over time as a result of competitive events and spectator visitation. Route maintenance needs would be highest under this alternative 	<ul style="list-style-type: none"> Impacts would be lower than Alternative 1 because the degree of open route maintenance located in proximity to the B-to-V race course is anticipated to be lowest of all alternatives presented. 	<ul style="list-style-type: none"> Impacts are similar to Alternative 1 except: The degree of open route maintenance associated with this alternative is anticipated to be higher than Alternative 2 and 4, but less than Alternative 1. 	<ul style="list-style-type: none"> Impacts are similar to Alt 3. However open route maintenance is anticipated to be higher than Alt 2 and less than Alt 1 and 3. 	<ul style="list-style-type: none">
Socioeconomic	<ul style="list-style-type: none"> Adverse impacts from Alt 1 are considered negligible. Should such an event be held, communities along the course, particularly in Barstow and Baker, could incur some economic benefit from the sale of goods and services to participants, their families, and to spectators. The past event has attracted up to 5,000 individuals. 	<ul style="list-style-type: none"> Communities along the B-to-V course, particularly Barstow and Baker, would lose some economic benefit from the sale of goods and services to participants, their families, and to spectators. May limit District 37 (AMA) in their ability to raise funds to support other events. 	<ul style="list-style-type: none"> Impacts are the same as Alternative 1. 	<ul style="list-style-type: none"> Impacts are similar to Alternative 1 except for the increased cost associated with running the activity in the Kingston Wash. 	<ul style="list-style-type: none">

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Summary of Impacts - Route Designation				
Resource	Alternative 1	Alternative 2	Alternative 3 (Preferred)	Alternative 4
Vegetation	<ul style="list-style-type: none"> Minor potential for fire occurrence 	<ul style="list-style-type: none"> Same as Alt 1 	<ul style="list-style-type: none"> Same as Alt 1 	<ul style="list-style-type: none"> Same as Alt 1
T&E Plants	<ul style="list-style-type: none"> Minor impacts to sensitive vegetation as a result of parking, camping, and route-proliferation 	<ul style="list-style-type: none"> Positive benefit to any known sensitive vegetation within ¼ mi. of routes 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alt 2
Noxious Weeds	<ul style="list-style-type: none"> Potential for weed establishment adjacent to open routes 	<ul style="list-style-type: none"> Same as Alt 1 	<ul style="list-style-type: none"> Same as Alt 1 	<ul style="list-style-type: none"> Same as Alt 1
Wetlands, Riparian & Floodplains	<ul style="list-style-type: none"> Localized impacts to springs frequented by visitors 	<ul style="list-style-type: none"> Positive benefit to springs and streams within ¼ mi. of routes 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alt 2
Wildlife	<ul style="list-style-type: none"> Minor impacts overall, localized seasonal impacts during wildlife calving and rutting 	<ul style="list-style-type: none"> Minor impacts overall, 1070 fewer mi. of routes would lessen localized or seasonal impacts 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Potentially greater than Alt 2 & 3, but fewer impacts on wildlife than Alt 1
T&E	<ul style="list-style-type: none"> Minor direct impacts, minor impacts to DT habitat (same as T&E plants) and some habitat fragmentation 	<ul style="list-style-type: none"> Consistent with biological parameters, fewer impacts to DT habitat and less potential for fragmentation 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alt 2
Soil, Water, Air	<ul style="list-style-type: none"> Some increased erosion potential, and disruption of biological soil crusts adjacent to open routes 	<ul style="list-style-type: none"> Same as Alt 1. These impacts will be offset by moderate benefit in washes from limited/closed routes 	<ul style="list-style-type: none"> Same as Alt 2 within DWMA's, less than Alt 1 outside of DWMA's but greater than Alt 2 based on likely number of closed or limited washes. 	<ul style="list-style-type: none"> Same as Alt 3
Water Quality/Quantity	<ul style="list-style-type: none"> Localized increased turbidity and leaking fuel oils in open wash routes 	<ul style="list-style-type: none"> Similar to Alt 1 in type, but lesser in quantity, based on fewer open wash routes. 	<ul style="list-style-type: none"> Same as Alt 2 within DWMA's, less than Alt 1 outside of DWMA's but greater than Alt 2 based on likely number of closed or limited washes. 	<ul style="list-style-type: none"> Same as Alt 3
Cultural/Native American	<ul style="list-style-type: none"> No new impacts anticipated. 	<ul style="list-style-type: none"> Positive benefit to cultural within ¼ mi. of significant sites 	<ul style="list-style-type: none"> Same as Alt 2 	<ul style="list-style-type: none"> Same as Alt 2
Recreation	<ul style="list-style-type: none"> No new impacts. CDCA Plan designations will continue. Five routes previously closed through Federal Register (1979, 1987) would be closed through this process. More routes may result in impacts to scenic resources for some primitive recreationists. 	<ul style="list-style-type: none"> Moderate impacts from restrictions on approximately 12.5% of DWMA routes. Technical 4-wheel drivers and hunters that currently utilize washes and more rugged routes for motorized access would be most affected. 	<ul style="list-style-type: none"> Same as Alt 2 within DWMA's.. Seasonally or otherwise limited or closed washes would be anticipated to be lower outside of sensitive areas, based on criteria. 	<ul style="list-style-type: none"> Similar to Alt 3, but no closures in MUC M or I based on redundancy would decrease the total number of routes affected, and therefore the recreational access restrictions.

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Summary of Impacts - Route Designation				
Resource	Alternative 1	Alternative 2	Alternative 3 (Preferred)	Alternative 4
Minerals & Mining	<ul style="list-style-type: none"> No new impacts anticipated 	<ul style="list-style-type: none"> Designation of wash routes as “closed” or “limited” will limit potential for ground exploration in southern third of the planning area now, and in the rest of the planning area in the future. Impact on mineral development is anticipated to be minor. 	<ul style="list-style-type: none"> Same as Alt 2 in DWMA's. Seasonally or otherwise limited or closed washes would be anticipated to be lower outside of sensitive areas, based on criteria. 	<ul style="list-style-type: none"> Same as Alt 3.
Vehicle Access	<ul style="list-style-type: none"> Abt. 8,560 miles of the inventoried route network in the southern portion of the planning area designated “open” except 11 mi. previously closed would be designated “closed”, along with 6 mi. other previously closed routes 	<ul style="list-style-type: none"> 7,490 miles designated “open”, 548 miles designated “limited”, and 521 miles designated “closed” of the 8,560 mile route network that has been inventoried in the southern portion of the planning area 	<ul style="list-style-type: none"> Same as Alt 2 in DWMA's. Future designations outside of DWMA's can be expected to result in more routes than Alt. 2 but less than Alt 1. 	<ul style="list-style-type: none"> Same as Alt 3.

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Summary of Impacts - Tecopa / Shoshone Proposed Landfill MUC Change for Disposal		
Resource	Alternative 1	Alternative 2 (Preferred)
Vegetation	<ul style="list-style-type: none"> • loss of vegetation 	<ul style="list-style-type: none"> • Impacts are anticipated to be the same as Alternative 1
Wildlife	<ul style="list-style-type: none"> • Loss of associated resident wildlife on approximately 5 acres of the lease site. 	<ul style="list-style-type: none"> • Impacts are anticipated to be the same as Alternative 1
Soil, Water, Air	<ul style="list-style-type: none"> • Surface disturbance, disruption and compaction of surface soils • Increased local dust generation during activities. • No future groundwater impacts are anticipated • Shoshone site also includes disruption of natural drainage patterns and increased erosion to an adjacent drainage. 	<ul style="list-style-type: none"> • Impacts are anticipated to be the same as Alternative 1
Land Use/ Utilities	<ul style="list-style-type: none"> • Indirect impacts would occur at the Tecopa site based on continued use of the existing landfill authorization until site closure and reclamation is effected, or, if State standards can be met, until the authorization expires in 2007. • Indirect impacts at the Shoshone site would occur based on continued use of the existing landfill authorization at a much reduced rate, until site closure and reclamation is effected, or, if State standards can be met, until the authorization expires in 2008. 	<ul style="list-style-type: none"> • Similar to Alt 1 except that: closure may occur over a longer time frame. Facilities are expected to get a limited amount of use in the future with modest impacts from landfilling activities. The State, rather than BLM, would identify mitigation measures, because it is against BLM policy to include encumbrances on these patents.
Socioeconomic	<ul style="list-style-type: none"> • The socioeconomic impacts of retaining the landfills in Federal ownership are unknown regionally. Locally, it may result in higher short-term costs for waste management in eastern Inyo County. The long-term costs are difficult to predict, and would depend upon the ultimate strategy and timing for each landfill. 	<ul style="list-style-type: none"> • Impacts are similar to Alt 1 except locally Alt 2 may result in lower short-term costs for waste management in Eastern Inyo County.

Summary of Impacts - Wild and Scenic River Eligibility
All Alternatives
<ul style="list-style-type: none"> • The WSR Act and Federal guidelines require Federal agencies, upon determination of WSR eligibility, to provide interim protection and management for a river's free-flowing character and any identified outstandingly remarkable values, subject to valid existing rights, until such time as a suitability study is completed. Refer to Appendix O, S, and T for a description of the outstanding remarkable values on each stream that will benefit by this eligibility determination. During this interim period all proposals that could affect the Amargosa River, Cottonwood Creek, and Surprise Canyon and their resources will be evaluated against the regulatory criteria and additional limits on uses may occur. Further analysis of potential impacts to all resources and uses will be evaluated during the suitability analysis.

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